

the American Perfumer

and ESSENTIAL OIL REVIEW

COSMETICS · SOAPS · FLAVORS

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Editorial Comment

Unfair Practice

The most valuable asset on the books of most manufacturers is the brand name of his product. His reputation, and with it his ability to stay in business, goes out of his plant with every item shipped which bears his trade-mark. He has found it hard to build up a good following.

Goods which were sold to the Government during the war were frequently exposed to conditions which might cause deterioration. They were sometimes subjected to adverse weather or climatic conditions, rough handling, bad storage, and frequent reshipment.

Some of this merchandise is finding its way into regular distribution channels, with a resultant loss of good will. Or is being offered to the original manufacturer, at above his sale price, forcing him to buy to protect his reputation.

It is all very well to remember our debt to veterans, and to others who enjoy preferential treatment in the disposal of surpluses, but a firm which has often spent years in establishing public confidence is entitled to some consideration as well. Wouldn't it be a lot more equitable for the War Assets Administration to let manufacturers buy back their own war-damaged merchandise?

Perfume

Rackets

The Toilet Goods Association, Inc., and The Perfumery Importers Association, Inc., have published a small booklet entitled "Perfume Rackets."

It points out some of the illegal practices which have been going on in the perfume industry. Practices which are designated as unlawful are: To sell or advertise "copies" or "reproductions" of well-known perfumes; to print lists in opposite columns in which the names of well-known perfumes are used in one column and in opposite columns the names of the so-called copies, reproductions or imitations of such perfumes; to refill any bottle which has once acted as a container for genuine perfumes, even with a genuine perfume.

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The Logeman Homogenizer is indispensable for emulsification of face creams, lotions, and all kinds of cosmetic preparations. It is also essential in the making of aqueous solutions containing a small amount of flavoring materials or essential oils such as mouth wash, face lotions, ointments, and manufacture of cream shampoos, cream colognes and Liquid Brushless shaving cream.



For the FLAVOR INDUSTRY:

For flavor manufacturers the Logeman Homogenizer will produce cloudy, ringless emulsions used in the carbonated beverage industry. Complete formulas and instructions furnished for fifteen different flavor emulsions. Also flavor emulsions for Bakers and Candy makers.

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Even the smallest cosmetic plant or flavor manufacturer can now enjoy the advantages of homogenization. Improves the appearance, texture, and stabilizes your product, giving it that all important "eye-appeal." This machine will more than pay for itself in savings on the cost of essential oils and emulsifiers by using less material. Follow the example of manufacturers who are now advertising homogenized cream.

This unit has an operating capacity of 300 lbs. or 120 qts. per hour. It is also indispensable for experimental work and testing. Batches as small as two or three pounds can also be homogenized easily and quickly. Pressure up to 2500 p.s.i. can be obtained. Simple to operate, it requires no special technical knowledge.

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Desiderata

by MAISON G. DENAVARRE

COLOR MIXING

You can get a greater depth of color or greater color intensity by wetting your colors down with a bit of oil. It takes very little oil to do so. A couple per cent is enough, properly distributed. That is the trick in making some of the dark or deep shades that defy duplication in ordinary powder matching.

Another note of interest is that when red, yellow and blue *light* are mixed, *white* light is the result. When red, yellow and blue *pigments* are mixed, the result is a *black* pigment. It can be easily explained by anyone knowing the action of pigments on apparent color.

LONDON & THE SCHIMMEL TEST

The solubility test for citronella oil in common use all around the world is known as the "Schimmel Test" first described in print in the October 1889 Schimmel Report. In this test, citronella oil must produce a clear solution with one to two volumes of 80 per cent alcohol at 20 deg. C. When diluted with up to 10 volumes of 80 per cent alcohol, only a slight opalescence at most, can appear. After standing for *several* hours, no drops of oil should separate.

Subsequent experience proved that citronella oils could be adulterated with petroleum derivatives, and still pass the "Schimmel Test," provided the adulteration was moderate. As a result, the "Schimmel Test" was modified to the extent that the citronella oil tested must not only comply with the above mentioned standard, but it must also comply after the addition of 5 per cent of Russian petroleum. The modification

became known in the industry as the "Raised Schimmel Test."

Both tests have been standard in the essential oil industry for years and are considered valid. It is admitted that the test might be a bit more exact as to the length of time for standing, the type of petroleum derivative used as well as the most desirable number of volumes of solvent to be added. Even so, these additional specifications would not change the test basically, and it should continue to be called the Schimmel Test.

Now it seems that the Essential Oil Sub-committee of the Society of Public Analysts of London, England, have likewise realised that the additional specifications just mentioned, would make the test more accurate. Investigation proved that maximum cloudiness occurred after the addition of 4 volumes of 80 per cent alcohol . . . thus overcoming the gap left by the former requirement of "up to ten volumes of alcohol." So, having found this out, the Schimmel Test was revised to include this new specification. The revised test is quoted:

"One volume of citronella oil should form a clear solution at 20 deg. C. with from *one to two volumes* of 80 per cent v/v alcohol, and with a total of *four volumes* of 80 per cent v/v alcohol, the solution should not be more than faintly opalescent and there should be no separation of oily drops on standing *overnight* in a stoppered cylinder at 20 deg. C." (my italics)

It doesn't require a great deal of technical training to realize that our British contemporaries have not invented a new test, but have slightly



M. G. DeNavarre at work in his laboratory

modified a long existing test. How then do the London boys justify the renaming of this *modified* Schimmel Test as "The London Solubility Test?"

Is this playing the game according to the Marquis of Queensbury rules? It is not! Nor can I see how anyone can lift the work of another, slightly modify it and call it his own, *ethically*. In writing circles this is called plagiarism and the offender doesn't get away with it. The Society of Public Analysts is too big, too fine and ethical to have to stoop to this. The only way I can see this as having been allowed to happen is that someone was so close to the work that the original name was forgotten in a moment of excitement and satisfaction resulting from finding the best dilution ratio for the test. The work having been done in London (possibly) led to the use of this name.

Tests actually made show that up to the point of adding 4 to 5 volumes of 80 per cent alcohol, the new so-called London Test and the Schimmel Test are the same. Both tests detected the presence of 7½ per cent kerosene when added to Oil Citronella Ceylon.

No, my dear Essential Oil Sub-committee of the Society of Public Analysts, you have not devised "The London Solubility Test" you have simply *modified* the "Schimmel Test." If it breaks your hearts to admit this, you might remain ethical by calling your version the "London Modified Schimmel Test." Substituting a new



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cosmetic raw materials, our Essential Oils and Aromatic Division inspires confidence in its customers, for it knows how to obtain and supply quality.

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name for that of a great master, doesn't change the masterpiece. Those acquainted with masterpieces could spot it anywhere. So it is here. Let's see if we were wrong about your ethics, Essential Oil Sub-committee.

BUBBLE BATHS

Only in the movies do they get scads of bubbles in bath sequences. Never at home. For the bubble bath products sold by most manufacturers do little more than produce a thin layer of bubbles over the surface of the water in the tub. Bubble bath manufacturers, you ought to be ashamed of yourselves.

It is admitted that the job is no easy one. The more one works at the problem, the more it is realized. It takes a pretty darn active foaming agent to give a tub full of lather from a bottle capful of "bubbles."

ANTIPERSPIRANT TEST

One of the tests made on antiperspirants to prove their safety to fabric, is to check them under laundering conditions. The laundering industry maintains an institute for that purpose. By way of trying to determine the mean variation between tests, the same sample was submitted under different code numbers at different times. Imagine my surprise when the values reported ran

from 0.3 per cent loss all the way up to 100 per cent loss for one formulation; for another, from 0 to 58.8 per cent, and for still another it ran from 4.5 to 55.7 per cent tensile strength loss.

It is a well known fact that there will be a variation even in the same piece of cloth and between workers. But a 100 per cent variation, is definitely wrong. You can guess closer than that.

When such variation was called to the attention of the Institute, the replying letter suggested that "another sample be submitted."

HAIR RINSE STABILITY

Recently, we placed envelopes of a half dozen of the best known brands of hair rinses in a container maintained at 100 per cent relative humidity, just to see how they would stand up under these trying conditions. One went to pieces in 24 hours, two more in 48 hours, two more after 72 hours and one took exactly one week before dampening of the granules was noticeable.

There was a great variation in the composition of the rinses as well as the paper in the envelopes used to package them. The problem must therefore be solved by attacking from two angles—packaging as well as formulation.

is used in tooth powder; can this same grade be used equally well in a face powder? Concerning refined coconut oil for a shampoo, can it be purchased already saponified or is this always done by the shampoo manufacturer himself? Would you recommend synthetic or natural menthol for an after shave cooling agent? Kindly list the nearest source to us of each of the following small quantities (1-25 lbs.) of materials:

Refined Coconut Oil
Naphthalene
Sulfocarbolate
Menthyl Salicylate
Oil of Cloves
Oil of Sesame
Gum Benzoin
Vanillin, U. S. P.
Precipitated Chalk
Menthol
Aluminum Lactate
Thymol
Oil of Cinnamon
Synthetic Musk
Storax
Triethanolamine Lauryl Sulfate

Please be assured that we shall appreciate your prompt reply containing any information you may send us.

P. E. J.—GEORGIA

A: It is our recommendation that you get yourself a few books on the subject of cosmetics and to paraphrase a heading on your letterhead, referring to the state in which you are located, "Watch yourself grow." Both light and heavy chalk are used in tooth powder, although usually the denser chalk is preferred. It all depends upon how much bulking you want in the package. The same applies to the face powder. Coconut oil has been practically unobtainable since the start of the war and still remains tight. You can buy coconut fatty acids normally for making shampoo by saponification on your own premises or you can buy a coconut oil shampoo concentrate that requires nothing more than dilution with water. There is no preference for synthetic as compared to natural menthol on our part, it is a matter of individual taste. We are unable to list the various sources of all the materials that you have indicated but will send you same under separate cover. We reiterate that you obtain some books on the subject of cosmetics which you will find very helpful in your business.

QUESTIONS AND ANSWERS

612. WETTING AGENTS

Q: We would appreciate names of suppliers of wetting agents for use in bubble baths, both powder and liquid, and cream shampoos. We also would appreciate any information you may have available as to the formulation of these products. We enclose a stamped, addressed envelope for your reply.

G. L.—OHIO

A: Under separate cover we are sending you the names of the suppliers of various wetting agents requested. Since your inquiry has been received we are glad to tell you that the sodium salt of sulfated fatty

alcohols of coconut oil sold in paste form by a trade name now may be used in the manufacture of cream shampoo. The best information we can give you on bubble baths is that which appeared in an article by Mittelstadt in the June, 1941, issue of THE AMERICAN PERFUMER. If you do not have a copy of this article, we suggest that you have a photostat made at your public library.

613. CHALK—COCONUT OIL

Q: We would be very grateful to you if you supplied us with the following information: What grade of precipitated chalk (light or heavy)

Jasminblend



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Mould Growth and Its Control in Packaging

The problem of mould growth and some methods of control which may be suitable for use in pharmaceuticals and cosmetics are discussed in this article

by C. G. LAVERS

Division of Applied Biology, National Research Council Laboratories, Canada

THE growth of moulds is a problem frequently encountered in packaged products, particularly those containing material of high moisture content, i.e., material likely to be in equilibrium with high humidities which provide particularly suitable conditions. This growth may take place on the package, e.g., on liners inside bottle caps, or upon the product itself if it contains nutritive materials upon which such organisms thrive. In the latter group are many foods, and cosmetics or pharmaceuticals containing vegetable oils, glycerine, certain of the higher fatty acids, etc. In this article the mould problem will be discussed and some methods of control will be suggested which may be suitable for use in pharmaceuticals and cosmetics either on the packaging material, or in the product itself.

The micro-organisms likely to occur in packaged cosmetics or pharmaceuticals are of two general types, bacteria, and moulds. This article will be limited to discussion of the latter type only. Before considering methods of control, some of the factors which have an effect upon the growth of moulds will be reviewed.

INOCULATION

Moulds are essentially plant-like organisms of microscopic size. When the organism comes to maturity, spores are formed, which are similar to the seeds or fruits of larger plants. Before moulds can grow on a product it must have been infected by spores. This infection is called inoculation. Mould spores are extremely small and can float in the air as a component of dust, can be in water, on utensils, hands, etc., without being seen by the human eye. They are usually present in air in large numbers, waiting only for a suitable place, and favorable conditions of temperature and humidity to start growing. The chief source then, from which materials of the type under consideration are infected with mould spores, is the air.

Micro-organisms require moisture to grow; bacteria

usually require the presence of liquid water, while, for many moulds, high relative humidity is sufficient. The optimum conditions of temperature and humidity for mould growth vary from species to species, but the best temperature is generally between 68 deg. F. and 104 deg. F., and the ideal relative humidity is around 95 per cent.^{1, 2, 10, 18, 22, 24} Little or no mould will grow below a relative humidity of 75 per cent. At any given temperature the rate of growth decreases as the humidity decreases.²⁸

AIR

With respect to air requirements, micro-organisms can, broadly speaking, be classified as one of two types; aerobic organisms which require air to live, and anaerobic which do not require air. Moulds belong to the aerobic group.

LIGHT

Unlike the green plants moulds do not require light to grow, in fact radiations, particularly in the ultra-violet region, are lethal to many.^{6, 22}

CHEMICAL CONDITION OF SURROUNDINGS

The acidity of a system will sometimes be a factor in the growth of moulds, although they are capable of existing over a rather large pH range. Bacteria grow best at a pH of 6.5-8.0, while moulds, although preferring the neutral range, can grow at a pH as low as 2.0, and as high as 9.0.^{22, 24, 26}

Toxic substances must, of course, be absent from the medium if mould growth is to occur.

FOOD SUPPLY

Besides having suitable conditions of temperature, humidity, etc., moulds must have substances present which

they can use as food. In pharmaceutical packages, this food may be present in the product, or it may be the packaging material.

PACKAGING MATERIALS' LIABILITY TO MOULDS

The liability of several packaging materials to attack by moulds has been examined¹⁵ and Figs. 1-10 illustrate the extent of mould growth on a few of these materials after inoculation with spores and storage in a mould infested cabinet at 95 deg. F. and 95 per cent relative humidity for periods of one to eight weeks. The severity of attack by moulds has been classified into four groups: none (N), surface free of mould growth; slight (S), growth had started at particles of foreign matter on the surface of the material; medium (M), growth was more general and was actually feeding on the material; abundant (A), growth was heavy and general.

The results illustrated in Figs. 1-10 indicate that on cellulosic materials, moulds usually begin to grow on foreign materials in or on the sheet, and when growth is well started, the cellulose fibres themselves are attacked. This is shown in several ways. First, samples of untreated kraft (Fig. 1) developed only slight growth at eight weeks, while laminated and microcrystalline waxed samples (Figs. 3, 5 and 6) showed abundant growth in four weeks, due probably to nutrients in the wax used for coating and laminating. Also, samples of vegetable parchment which were soiled with perspiration (Fig. 8) developed mould more rapidly than unsoiled samples (Fig. 7). The presence of other foods accelerates growth considerably on materials such as kraft, glassine, and vegetable parchment.

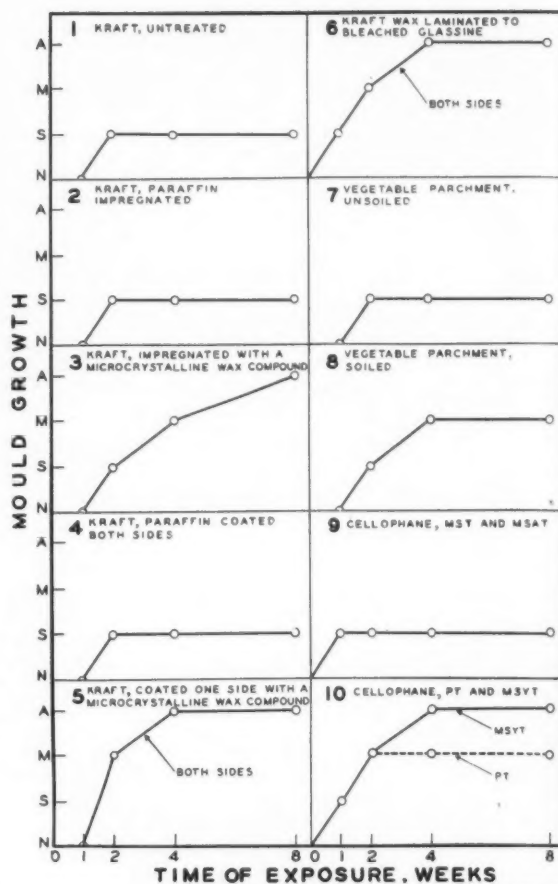
Moulds developed readily on the sample of kraft, coated with a microcrystalline wax composition (Fig. 5); both on the wax and on the kraft. Microcrystalline waxes generally provide a good medium for mould growth.¹³ Pure paraffin wax is not utilized as food by moulds,² however, samples of kraft impregnated and coated with paraffin (Figs. 2 and 4) developed fungal growth at about the same rate as untreated kraft. It has been observed elsewhere,³ that coating paper with paraffin wax is not an entirely effective mould proofing treatment. Using a heavy coat and very pure wax would probably increase the effectiveness of this treatment.

MST, and MSAT "Cellophane" are quite mould resistant (Fig. 9) developing only a slight surface growth after eight weeks exposure in the humidity cabinet. PT, and MSYT Cellophane, however, are readily attacked by moulds (Fig. 10), probably because of some nutrient added in the processing of these types.

Of the various cellulosic packaging materials, cellulose acetate is the most resistant to attack by moulds. A sample of this material was free of growth after eight weeks storage under the conditions described above. The excellent resistance of this material has also been noted by others.^{1, 12, 27}

FOOD FOR MOULD GROWTH

In cosmetic and pharmaceutical packages there is danger that moulds may find suitable foods in the product itself, even though the packaging materials are inert. Some materials which may cause difficulties in this respect are: vegetable oils such as olive oil,^{2, 9} glycerine, most proteins, and sugars. The higher fatty acids such as oleic acid sup-



Courtesy National Research Council of Canada.
Figs. 1-10 Susceptibility of some cellulosic packaging materials to attack by moulds

port growth, while the lower members of this group such as caprylic, lauric and propionic acid retard mould development.² Pure mineral oil and paraffin wax do not support growth.

SOME METHODS OF CONTROLLING MOULD GROWTH

It is not intended to discuss all of the methods used for controlling mould, but merely to indicate some which may be useful in pharmaceutical and cosmetic packaging. These methods may be conveniently dealt with under the same headings as were used in discussing the factors influencing growth.

INOCULATION

Products may often be infected with mould spores from the air while being packaged. Hence, thorough plant sanitation should be practised, and damp places, where moulds can grow and give off their spores into the air, should be eliminated if possible. Irradiation with ultraviolet light is effective in reducing the number of spores either in the air or on the product. This method of controlling mould has been used for bread, and for other food and biological products.^{8, 22}

TEMPERATURE AND HUMIDITY

Mould growth on packaged goods can be prevented by maintaining the relative humidity inside the package at

less than 75 per cent. The wartime package consisting of a water-vapour resistant barrier with a desiccant inside to maintain a low relative humidity may be applicable to some pharmaceutical products. Gelatin capsules have recently been protected in this way.²⁰ If controllable, storage temperatures should be kept as low as possible although this factor is much less important than the consideration of humidity.

It may be possible to sterilize some materials with heat, either before or after packaging. Exposure to 212 deg. F. in a moist atmosphere for approximately ten minutes should kill all the spores present, but after sterilization takes place, care must be taken that further infection does not occur.

AIR

Since moulds are aerobic organisms, exclusion of the air from a package would prevent them from growing. This method of control may be applicable to certain products, where air could be excluded by completely filling the container, by packing under vacuum, or by packing in an inert gas such as nitrogen.

FOOD SUPPLY

If there are no ingredients in the product on which moulds can feed, growth can be prevented by using packaging materials that will not support it. Liners in bottle caps may be protected by coverings of mould resistant material such as cellulose acetate or metal foil.

Papers containing starch or protein sizes should be avoided since these are foods for moulds, and hence facilitate their growth.

CHEMICAL CONDITION OF SURROUNDINGS

Since it is often not possible to obtain the conditions described in the above sections, it may be necessary to resort to the use of antiseptics to prevent mould growth. Of the great number of substances used for this purpose, many are not suitable for use in cosmetics and pharmaceuticals because of their toxicity, dermatological properties, odor, or flavor. While little specific information exists on mould inhibitors for use in cosmetics and pharmaceuticals a few agents which may prove satisfactory will be discussed.

Where conditions are not severe, and a mild fungistatic agent is sufficient to prevent growth, calcium propionate, which has been used successfully in the food industries, should prove satisfactory. This agent may be used to treat the packaging material, or the product itself. It has been used with considerable success for treating butter and cheese wraps to prevent surface mould,^{14, 23} and for inhibiting mould development in bread.^{8, 20} Calcium propionate is odorless, does not taint the product at effective concentrations, and is not toxic. Also used to combat moulds in food is the combination product of sodium acetate and acetic acid known as sodium diacetate.^{8, 25}

Salicylanilide, commonly known as Shirlan, is a very effective fungicide, and has been used successfully to prevent mould on fibrous materials such as cotton and leather.^{3, 7, 11, 16} This chemical is a colorless, odorless, non-volatile solid, sparingly soluble in water. Preliminary tests indicate that salicylanilide does not irritate the skin at the level of concentration (0.2-0.5 per cent) necessary to prevent mould growth.¹⁷ Hence, it should be safe to use this

agent for treating products which are to be used externally, and for treating the packaging materials to be used on these products.

Para-nitro-phenol (0.75 per cent), para-chloro-metaxenol (0.5 per cent) and tri-chloro-phenol in triethanolamine (0.05 per cent), are all effective fungicides and preliminary tests indicate that they do not produce skin irritation at the concentrations indicated.¹⁶

Pentachlorophenol has been used successfully for mould proofing paper²² but is toxic and has a rather strong odor. Tests indicate it does not cause skin irritation at the low concentration (0.25 per cent) required to protect paper,¹⁷ but it is known to produce dermatitis at higher concentrations. This agent is usually added to the paper stock in the beater as the soluble sodium salt, and later precipitated on the fibre by acidic compounds.

Phenyl mercuric compounds though highly recommended for their fungicidal properties^{4, 16, 19} are toxic and irritate the skin. Here again, however, it appears possible to overcome these defects by using very low concentrations. It is claimed that 0.00175 per cent of phenyl mercuric nitrate is sufficient to protect textiles against mould development under drastic conditions.⁴ To show that this type of compound can be used safely, one author went as far as to bathe in a 0.05 per cent solution of phenyl mercuric acetate for half an hour, with no visible effects.¹⁹ Safety levels for these compounds in cosmetics and pharmaceuticals have been discussed.⁵

In closed containers some volatile substances like ammonia from ammonium salts, camphor, menthol and thymol, are effective in controlling mould growth.³ Some of these agents may be useful in products where their odor would not be objectionable.

MOULD-PROOFING AGENTS DEMAND RIGID TESTS

Before using any of the foregoing mould-proofing agents to protect a particular product it is strongly recommended that the method of treatment be tested under conditions at least as drastic, as those normally encountered. Besides mould resistance, toxicity and dermatological properties should be thoroughly checked.

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Chicago Show Unveils New Ideas

by JEAN MOWAT

WITH every firm talking shortages of containers and bottles there were many new ideas presented at the Chicago Toilet Goods exposition at the Palmer House opening August 19 for 10 days. Many lines were unable to accept new accounts but buyers were listed for the future.

Highlights of the show combined re-dressing of old packages, smaller perfume bottles as Whirlwind of Frances Denny, Renee Thornton's purse packet, and word of the national promotion campaign that will be made on *Mistress of the Night*, Peggy Sage will feature *Heady Wine* as its headliner for the holidays, plus complete new manicure kits. Dorothy Gray, Ltd., has re-packaged *Magic Hour* in plexiglass and offers *Hot Note* in a bath ensemble of cologne, soap, bath oil and dusting powder.

Bath ensembles offer unusually smart ideas as the lucite bath box of Jacqueline Cochran, and the oil, cologne and lotion in an accordion gold box by Mary Chess. Ann Haviland offers a new wood violet, as exquisite in color as the flower for which it is named. Primrose House has added *Witchery*, in both perfume and cologne to its line and the box comes in black and gold. Mary Dunhill has repacked gardenia fragrance in a gardenia foliage covered box, and other fragrances are in gold boxes. Hugh Genske offers *Aokist* in a gold inner box that has a black lace edge, and the cover of the box is surrealist. Jean Vivadou has repacked *Baby Breath* for drug stores.

Lentheric's new *For Him—For Her* box, suggested as a host and hostess gift is the first of its type offered, one side featuring perfume and cologne for Madame and the other toilet water and cologne for Master. Fabergé offers a

holiday set of perfume, cologne and sachet. Roger & Gallet presents *Innuendo* in a surrealist package that can be had in a set of perfume, toilet water, talc, dusting powder and sachet.

Kay Daumit's perfume mist and body lotion are additions to the line that include fancy ridged lucite bases into which perfume bottles have been set. These are square and not easily upset. This firm's highlight was its plastic perfume case, made to resemble a book with the *Forever Amber* embossed. The plastic is first covered with silver, then gold-plated. The result is highly decorative, even to the screw top with a metal plunger for applying the scent, placed at the top of the "book" suggesting a book-mark. Sparkling cologne is offered by Cady and combination bath sets have champagne-shaped bottles in three colors for bubble bath, and for colored bath salts.

Every firm displaying its lines had suggestions for display and advertising. American makers include sachets as an important part of sales. These ranged from the sachet scented evening bag of Mary Chess to satin covered hangers. Kits are new in many little details, but often too heavy for convenient airtravel.

Men's toiletries are given a very masculine appeal, many with wooden tops and square containers. Toujenais offers *Andalusia* with a spun aluminum top; *Parfums Blanchard's Plaid* has a wooden top and a similar one is used for *D'Artimon's* line. Kay Daumit's *Lord Carlton* is in a squared bottle with a wooden top. Lentheric presents *Fougère* toilet water for men in a large heavy type bottle, and Fred Mulhens Inc., has men's colognes and toilet waters in wicker covered bottles.



Miss Peggy Geddes of Peggy's Gift Shop, Kenosha, Wis., studying the Jacqueline Cochran bath box. Miss Helen James handles the sale.

The setting Mary Chess used to display the return of the chess bottles was of interest to all who saw the display of toiletries.



Miss Alice Mathews of Mandel Brothers called at Wrisley's and was told about the success of the men's line by Normand W. Godbout.

Miss Virginia Trukey, of Trukey's, Minn., visited Fabergé to see the new package of perfume, cologne and sachet in four fragrances.

The Economic Extraction of Essential Oils

Practices in forestry may result in large wastes of tree constituents which the essential oil industry may utilize economically

by ROBERT S. ARIES*

PRESENT day forestry practices result in large wastes of tree constituents either as a result of lumbering operations or as "unsalable" wood. The essential oil industry may make a larger contribution in this respect by utilizing economically these wastes, reducing the fire hazard and building up the forests of the Northeast into saw-timber size. With favorable markets, great economic advance in management would be effected.

There appears to be a steady utilization of conifer leaf oils, and the creation of a demand for new oils, as well as the extension of markets for the common ones, may be anticipated. It is frequently difficult, however, to introduce a new oil on the market, even though it may have decided merit.

The methods of extracting essential oils are four in number:

1. Extraction by pressing
2. Extraction with volatile solvents
3. Extraction with non-volatile solvents
4. Extraction by steam distillation

EXTRACTION BY STEAM DISTILLATION

Conifer leaves generally can be worked on by the last method, using steam at various pressures, usually at atmospheric. As the steam passes upward through the needles the oil volatilizes and the mixed vapors pass together into a cooling apparatus where condensation takes place. The condensation products soon separate into a layer of oil and water, owing to their immiscibility and difference in specific gravity.

Steam distillation under pressure is more rapid and produces more oil than distillation at ordinary pressure. When steam at atmospheric pressure is employed a greater yield is obtained if the needles are cut into small pieces. In this way the oil ducts are more exposed to the action of the steam and more material can be placed in the still. Experiments have shown that a still will hold 25 to 50 per cent more material when it is finely cut.

The largest yields are obtained from young trees. In the Northeast, cedar oil is distilled mostly from small trees growing in old pastures and abandoned fields. All trees growing in the open contain more oil than those in a normal forest stand. The season of the year also appears to

have a considerable effect, the data available essentially agreeing in that most oil is obtained during the winter and spring months. The leaves of the western red cedar (*Thuja plicata*) were richest in January, February, and March; the leaves of incense cedar were richer in February and November than during the intervening summer months.

YIELDS FROM VARIOUS SPECIES

The oil is found in longitudinal ducts running through the needles. The number and size of the oil ducts vary greatly with the different species, and on these factors the yield of oil is largely dependent. The number of oil ducts may vary from 1 to 10. Naturally the species containing numerous ducts of large size will give the largest yield of oil. This assumption has been verified in the various species examined by the Forest Products Laboratory and others. The long-leaf pine needle contains 5 large oil ducts, the average yield of oil being 0.42 per cent, while the lodgepole pine needle contains two oil ducts, the average yield of oil being only 0.16 per cent. In all cases the yields are given in per cent of the weight of the green leaves.

The approximate yields and principal constituents of the various species are given in Table I, giving data by Schorger.¹

More recent Canadian work² indicates that:

1. The storage of branches for several weeks does not affect the yield; 2. The smaller the branches the more effi-



The largest yields are obtained from young trees growing in the open

* Director of the Northeastern Wood Utilization Council and Research Associate at the Polytechnic Institute of Brooklyn.

	Yield of oil	Specific gravity*	Principal constituents
Red pine (<i>Pinus resinosa</i>)	0.10-7	.....	.....
Pitch pine (<i>P. rigida</i>)	.10-7	.....	.....
White pine (<i>P. strobus</i>)	.10	0.9012	α -pinene
Longleaf pine (<i>P. palustris</i>)	.40	.8829-.8849	Camphene, B-pinene, borneol, cadinene
Cuban pine (<i>P. heterophylla</i>)	.27	.8877-.8894	Camphene, B-pinene, borneol, cadinene
Ponderosa pine (<i>P. ponderosa</i>)	.08	.8718-.8849	α -pinene, dipentene, borneol
Sugar pine (<i>P. lambertiana</i>)	.09	.8676-.8738	α -pinene, B-pinene, dipentene borneol
Digger pine (<i>P. sabiniana</i>)	.09	.8517-.8566	α -pinene, limonene
Lodgepole pine (<i>P. contorta</i>)	.23	.8690-	Phellandrene, B-pinene
Red fir (<i>Abies magnifica</i>)	.15	.8665-	Phellandrene, B-pinene, borneol
White fir (<i>A. concolor</i>)	.13	.8720-.8777	α -pinene, B-pinene, phellandrene borneol
Douglas fir (<i>Pseudotsuga Taxifolia</i>)	.16	.8727-.8759	α -pinene, B-pinene, limonene, borneol
Red spruce (<i>Picea rubens</i>)	.20	.9539 at 16°	Borneol, bornyl acetate
Black spruce (<i>P. mariana</i>)	.60	.9274 at 19°	Bornyl acetate, terpenes
White spruce (<i>P. canadensis</i>)	.10	.9216	Bornyl acetate, limonene (?)
Hemlock (<i>Tsuga canadensis</i>)	.40	.9288 at 20°	α -pinene, bornyl acetate
Balsam fir (<i>A. balsamea</i>) Miller	...	.8881 at 20°	α -pinene, bornyl acetate
White cedar (<i>Thuja occidentalis</i>)	.50	.915-.930	α -pinene, fenchone, thujone, borneol
Western red cedar (<i>T. plicata</i>)	1.00	.9305 at 25°	Thujone, pinene
Incense cedar (<i>Libocedras decurrens</i>)	.23	.8655-.8733	α -pinene, limonene, borneol, librocadrene
Red juniper (<i>Juniperus virginiana</i>)	.20	.887-.900	α -pinene, limonene, borneol, cadinene
Tamarack (<i>Larix laricina</i>)	.15	.8816	α -pinene, bornyl acetate

* at 15 deg unless otherwise stated

cient the operation, both on account of higher yields and larger capacity per given still; 3. On a laboratory scale, similar yields were obtained by steam at higher pressures. Industrial distillators recommend pressures of 40-50 p.s.i.; 4. Well packed branches give higher yields; 5. Branches of isolated trees give higher yields than those of trees grown in a forest; 6. Young trees give higher yields than old ones; 7. Maximum yields are obtained from January to April. The months of September to November are also good, though not as satisfactory. The lowest yields are obtained from May to August; 8. The average yields obtained by Risi and Brule differ substantially from the ones of other investigators, as can be seen from Table II.

TABLE II
AVERAGE YIELDS OF ESSENTIAL OILS

	Risi & Brule	Average Yields by Weight* Gildemeister*	Schorger†
Eastern white cedar	0.45	0.4-0.65	0.5
Balsam fir	0.65	ground 0.56 per cent branches 0.2-0.3 per cent	...
White pine	0.56	0.3	0.10
Spruce	0.35	0.25-0.57	0.60
Hemlock	0.22		0.40

* Gildemeister and Hoffman, "Die Aetherischen Ole" (1910).

† Op. cit.

A commercial distillery is believed to be able to obtain the following yields:

Eastern white cedar	0.6-1.0 per cent
Balsam fir	1.0-1.4 per cent
Pine	0.6-1.0 per cent
Spruce	0.5-0.7 per cent
Hemlock	0.4-0.6 per cent

BALSAM NEEDLE OIL

The recovery of balsam needle oil has been studied at the Technology Experiment Station of the University of Maine.³

Balsam needle oil, one of the class of the so-called pine oils, is considered to be a product chemically intermediate between turpentine and resin. Its chief chemical constituents are various terpenes, terpene alcohols and their esters, and the sesqui-terpenes. The alcohol borneol and its ester,

bornyl acetate, are regarded as the ingredients which impart to the oils much of their pleasant odors.

As a result of the above investigation, there seems to be no question as to the possibility of the extraction of needle oil of acceptable quality from Maine conifers. However, consumption is on a relatively small scale due to limited uses. The major use for oils of this class is to provide an agreeable scent to various commodities such as perfume, toilet articles, and soaps. Various statistical sources indicate that no information is available in regard to domestic production, although a few small units are known to exist, and that annual imports have never exceeded a few thousand pounds.

COLLECTION OF RAW MATERIAL

The major item in production cost of needle oil is that of collection and transportation of raw material.⁴ Several methods of collection were therefore studied, employing the same operators in every case so that a fair comparison might be obtained. Loading and handling would obviously be easier with compact material, suggesting the desirability of baling the cut limbs or packing them into burlap bags. Some material was collected according to both procedures, the limbs being stripped from small trees and either baled or bagged at the point of stripping. Of the two operations, baling proved more rapid than bagging, but was found to require approximately two man-hours per 100 pounds of green boughs. On the other hand, it was found that if small trees, or limbs and tops of large trees were collected in a central place and shipped in bulk without further treatment, the labor was reduced to about one-half a man-hour per 100 pounds of green material. Small trees and large limbs so handled were purchased at a price of from nine to twelve dollars per ton, variation in price being due to different proportions of wood present with the needles, and to the distance which the material had to be hauled. The average distance hauled was about five miles from the point of collection.

APPARATUS

The apparatus employed in the Maine laboratory consisted of the same units that would be necessary for a

TABLE III*
Comparison of Yields from Laboratory Still with Characteristics of Charge

Size	Cut	Days stored	Per cent water	Weight (lbs.)	Vapor pressure (Lbs./sq. in. absolute)	Time (Hours)	Steam (Lbs./hour)	Per cent yield (dry basis)
Tips	Jan. 2	46	8	135	9.8	3.0	100	0.15
Wood, Tips	Apr. 5	61	13	100	10.5	3.0	100	0.37
Wood, Tips	Jan. 2	48	15	133	12.9	4.0	100	0.55
Tips	Jan. 2	42	6	33	14.7	3.0	100	0.56
Wood Tips	Jan. 2	40	20	38	14.7	3.0	100	0.68
1/4" Limbs	Dec. 21	7	8	127	14.7	3.0	100	0.72
Wood, Tips	July 14	32	40	100	14.7	3.0	100	0.73
Wood, Tips	Jan. 2	9	30	140	14.7	3.0	100	0.90
Wood, Tips	July 14	5	52	100	14.7	3.0	100	0.91
Wood, Tips	May 29	41	20	114	14.7	3.0	100	0.92
Wood, Tips	Jan. 2	45	18	148	14.7	4.0	100	0.96
Wood, Tips	May 29	11	34	98	14.7	3.0	100	0.99
Wood, Tips	July 14	3	45	98	14.7	3.0	100	1.00
3/4" Limbs	Dec. 21	7	27	143	14.7	3.0	100	1.03
Wood, Tips	Apr. 5	8	37	110	14.7	3.0	100	1.07
Wood, Tips	May 29	15	30	104	14.7	3.0	100	1.07
Wood, Tips	Sept. 12	98	16	135	14.7	3.0	100	1.08
Tips	Jan. 2	43	6	135	14.7	4.0	100	1.10
Wood, Tips	Apr. 5	45	35	105	14.7	3.0	100	1.18
Wood, Tips	Sept. 12	99	9	136	14.7	3.0	100	1.26
Wood, Tips	July 14	4	45	106	19.7	3.0	100	1.04
Wood, Tips	Apr. 5	47	30	107	19.7	3.0	100	1.34
Wood, Tips	Apr. 5	60	20	80	22.7	3.0	100	1.19

* Jenness and Caulfield, op.cit.

similar operation on any scale. These are a cutter to reduce the charge of small trees or boughs to suitable fineness, a still for steam distillation, a condenser for recovery of the overhead product of the still, and a gravity separator for removal of the oil from the condensed steam. To these, there would normally be added a steamboiler, which was not necessary in this investigation since steam from the mains was available in the laboratory.

The cutting equipment used was a small McCormick-Deering ensilage cutter with traveling feed-carriage and blower. This was driven from a countershaft at about 600 r.p.m., the blades being so adjusted that needles and wood were reduced to a length of about three-eighths of an inch. When so cut, the charge could be blown either to storage or directly into the still.

EXPERIMENTAL PROCEDURE

Boughs or small trees at the Maine Technology Experiment Station were first reduced by passing through the ensilage cutter, after which process they were packed into the still. Cutting took place shortly before distillation, the cut charge not being allowed to stand in contact with the air for more than a few hours. Moisture samples were taken immediately before charging into the still. Although it would undoubtedly have been more convenient to have taken advantage of the blowing apparatus connected with the cutter in charging, the situation of the two pieces of

equipment involved did not permit doing so.

The steam to the open coil was next turned on, bringing the contents of the still to its boiling point in some 15 minutes. Once condensate began to appear at the condenser outlet, its rate of removal was controlled by the rate of steam admission, and the start of the run was considered to be the time when the effluent from the condenser first appeared.

The end of the run was taken as the time when no appreciable quantity of oil droplets could be seen in the condensate then forming. The contents of the separator were allowed to stand sufficiently long to insure complete stratification of oil and water layers. The bulk of the water layer was rejected, and the final separation of oil and water made in a glass separatory funnel.

The physical properties of the oil were determined, principally specific gravity and refractive index; and in some instances the oil was subjected to fractional distillation for the determination of its chemical constituents.

DISCUSSION OF DATA

The accumulated data appear in Tables III and IV, so arranged as to present the effect of variable operating conditions and also any possible influence that the season of cutting might have on the yield of oil. Further data from Maine are presented in summary form in Table V.

Expression of yield on a dry basis is necessary for pur-

TABLE IV
Comparison of Yields from Bugesport Still with Characteristics of Charge

Type of Charge				Vapor pressure				
Size	Cut	Days stored	Per cent water	Weight (lbs.)	(lbs./sq. in. absolute)	Time (Hours)	Steam (lbs./hour)	Per cent yield (dry basis)
Wood, Tips	Sept. 12	8	54	1200	16.7	4.0	300	0.67
Wood, Tips	Sept. 12	13	52	1200	21.7	4.0	300	0.76
Wood, Tips	June 23	4	45	1000	24.7	4.0	155	0.91
Wood, Tips	Sept. 12	15	52	945	26.7	4.0	300	1.05
Wood, Tips	June 23	7	41	1600	32.2	4.0	155	0.79

$$\frac{1.07}{1.0 + \frac{30}{70}} = \frac{1.07}{1.428} = 0.75 \text{ per cent}$$

Data relative to the season at which the Maine raw material was cut and to the length of time that it remained in storage is given in Table V. A similar type of charge was employed in each run.

Run number	Out	Days stored	Per cent water	Per cent yield (dry basis)
1	Sept. 12	90	13	1.17
2	Jan. 2	45	18	0.96
3	Sept. 12	7	18	0.88
4	May 29	41	20	0.92
5	Jan. 2	9	30	0.90
6	Apr. 5	45	35	1.18
7	Apr. 5	8	37	1.07
8	July 14	32	40	0.73
9	July 14	3	45	1.00

Heat losses from the equipment demand a minimum quantity of steam to keep the mixture at its boiling temperature. If the oil is free to exert its normal vapor pressure, the rate at which oil will distill will be proportional to the rate of steam supplied in excess of that needed to maintain the mixture at its boiling point.

held, Maine Technology Experiment Station, op. cit.

48 September, 1946

The American Perfumer

Cosmetic Trends in the Middle West

A new approach is needed in selling loose powder . . .

Hair treatment lines bound into new sales position . . .

Stocks are anticipated as adequate for the holidays

by JEAN MOWAT

YOUNG Americans, off to college and finishing school where everyone wears a smart make-up, received little specific attention from the great stores of the Middle West, as what-to-wear has been given the ascendancy in presentations.

Hudson's, Detroit, captured the make-up theme by using advertising and display space to stress the "beauty basis to take back to school." Hudson's completely ignored the cake idea, but did feature a quick refresher for between classes to keep a complexion at par, and offered a good lipstick and powder for essential daily use. Topping off the idea presented for back-to-school was the statement that this type of basic make-up is used by "a discriminating gal who aspires to campus success." Sales went to those "gals" who would be on or off the campus.

The back-to-school theme was a cue missed by dozens of leading stores who gave all stress to apparel. Where junior cosmetics were featured last winter and high school girls had discovered their use, business was generally fair. "but nothing to what it should be," was the comment of a buyer who admitted she should have made a feature of this section. As a girl off to college considers herself grown-up, she would prefer to do her shopping in the regular section. Unfortunately, most of them do not give her much consideration.

POWDER NEEDS DEMONSTRATION

Considerable comment among buyers, especially those in chains, is directed towards the low volume of loose powder sales. The steadiness of cake powder has some reason for its

popularity which buyers recognize. Most of them feel that a new approach is needed in selling loose powder.

Cake has won its position because of its ease in application and its lasting qualities. Both important.

Buyers believe that the time has come for a demonstration of how to apply loose powder. This would show the difference between the "floured" effect, the spotty application and the one which has the smoothness and freshness of a cake. When such presentations are made powder sales will zoom.

While every chain drug store reports that cake is capturing all sales, style selling stores report that it is steady in sales but not showing increases. This they opine means that sales have reached a peak through their distribution. Loose powder sales hold steady although the past summer showed a slight increase.

The Fair, Chicago, conducted a most successful clinic in make-up for the college and business girl. The clinic showed how to apply creams, etc., and gave a skin analysis. To add spice to the idea there was an expert to suggest the right type of hair-do for the right face and a talk was given by a fashion counselor on what to wear, where, and why.

HAIR TREATMENT LINES

For months all talk about the steady rise in shampoo creams has stressed merely this one type of sale. Perhaps it is the long, hot and humid weather, plus the drought which has made both men and women conscious of their hair. Leading style stores are the first to report that all types

of hair oils, salves for the scalp, and lotions to keep hair in place had suddenly bounded into new sales positions. Part of this is attributed to the new hair brushes which are being shown, but even that type of display could hardly account for the upward curve in the sales of these preparations.

KEEP FRESH LINES GROWING

Perhaps the hair treatment lines sales' increase is only part of the returning program which every GI who has been in foreign countries wants—cleanliness. The sale on depilatories and on certain other types of hair removers has increased. Present sales will top those of last year. Such sales are expected to remain steady for two reasons: The return of extra sheer hose and the discovery (?) by GI's overseas that a depilatory can enable a deodorant to be effective much longer.

What the war did for deodorants is now appearing in the figures of both the men's departments and in the upturn curve of the sale in women's sections. Both of these items will be in college wardrobes. An occasional kit features them, as well as other beauty essentials.

PRICE VS. SCENT

Manufacturers of American colognes and perfumes took advantage of the permitted increase in price—some so much so, that it has slowed sales generally. Colognes in the best stores of the Middle West slumped in August. That month with its dog-days and humid nights was allowed to pass without much promotion—a page now and then—although coun-

ters in leading stores had clearances of many lines.

"With the advanced prices on merchandise why do you offer these colognes at less than half price?" a buyer was asked.

"First of all some are leakers. Secondly, this store will not permit us to carry over merchandise beyond one year or one season. If it has not sold it must continue to be reduced until it is cleared. This is the second reduction, but there are only about two dozen to be sold. We are also discontinuing the line."

The packages were gay in design, a choice of silver, red, or blue and the gay inner bottle was a gift de luxe for the woman who favored a light fragrance. But even this attractive package did not create too much stir in the store.

Drug stores stressed the use of colognes for coolness and skin freshness. Style stores used such expressions as: "Summer fragrances to interpret your mood"; "for after bath luxury"; "light and refreshing as a bed of lilies of the valley." But these large stores did not stop with merely the cologne theme, they offered perfume, bath oil and talc to match. The sales were steady and because many items were well packaged they sold for gifts.

Perfumes do not seem to have had as much set-back in sale as colognes had, much of which every buyer contends is due to price. Perfumes have rarely been featured in the low-priced class as have colognes and toiletwaters and that may be one reason why their sales hold steady. Another factor may be the very high prices being asked for imported scents, which in contrast to the American make is much too high for many pocket-books.

"A year ago this difference in price would have been ignored," was the comment of one man, "but today there is more and more of a selectivity appearing in all purchases of perfumes and colognes."

From quite a different type of store the woman buyer made this interesting comment: "The day of big money income is over. This we see every day in the department. Items which we could have sold in gross lots six months ago are now selling in units of one. Not only have perfumes and colognes been slowed in sale, but we find treatment lines are moving slow-

er than they have in years," she said.

A check throughout the territory showed that stores in Duluth, St. Paul and Minneapolis, Kansas City (always a strong promoter of treatment lines) Detroit, and St. Louis were experiencing the same slow business that leaders in Chicago reported. How much the extremely hot summer has had to do with this no one can answer. In the far South where temperature remains high for seven months, the sale of treatment creams in comparison with the same selling months in the North are even far below what is considered a drop in sales. During the heated months treatment creams are very slow sellers so this may be the present re-action through the Middle West where drought conditions have prevailed for two months.

While buyers voiced their opinion on sales, any specials offered and many local lines which were a summer feature of presentation, moved into a new volume of sale.

CHRISTMAS BUYING

Buyers from both coasts came to Chicago for the annual toiletries display and stayed to place orders. These purchasers reported that current orders would be about the same as last year. More kits are to be had. These have been in heavy demand and the present supply—much better made than a few seasons ago—is expected to be a big holiday item.

Some interesting side-lights flash into the main picture and include the position of men's toiletries; the place of junior cosmetics; the importance of fancy or plain bottles for scents designed to be re-used.

Men's toiletries are now offered in so many price and style ranges that a leveling off may be expected during the coming year. The higher cost of living, and reduced purchasing power of the dollar are all being considered by stores which are placing orders. Every buyer admits that a weeding out is due. Inexpensive but good lines will probably be offered to wholesale druggists or even to wholesale grocers, say those in the know. That sales will continue goes without saying because so many men who were overseas received these packages as gifts and liked them. They will now purchase them and make their own particular selection.

Junior cosmetics are just beginning

to find a field of their own. This is one type of cosmetic which has been proved to sell if offered in the girl's department. Mainfloor, or regular toilet goods sections, report only losses. The specialized departments report repeat sales, and for Christmas the presentations will be both important and elaborate. There are two ages in which these sell well—4 to 9 when a cologne, a pomade stick and a fine talcum and soap are sold. Age 6-8 will only accept a colored pomade stick, and soap.

The teen-agers go all out for cosmetics. They want a cleansing cream, leg and cake make-up but these must be creamy and look smart. Bath mitts and colored soaps are a favorite item, and all kits must have cologne if a sale is to be made.

Some of the older teens want a tissue builder as well as cleanser and prefer a powder for all but school hours when a cake is less work to keep fresh looking. This age group will select its own items, often has a kit especially made up for it and usually will repeat on favorite items. Some stores permit a sale of units, rather than kits and this has served to increase sales. The business is new, the sales are heavy at Christmas, and good lines are sold as gifts at any time. One store in Chicago carries three different lines, each selected for the age group it plans to sell. The business is satisfactory as repeat sales show. There are virtually no returns or adjustments on these sales.

Packaging and bottles will play their usual role in the holiday business, if they are available. Buyers report receiving information that no private label boxes will be packed for them. The maker's own box must be used due to shortages of material and labor. The few lines that have re-packaged are receiving an up-turn in sales, often because they are eye appealing. Bottles and jars are still critical, according to certain stores which have their own brands and use a special type of jar for this pack. Stocks are anticipated as adequate for the holidays as delivery is better than it has been in months. "The packages we've had moved well and they will continue," said a buyer, "for this year the customer is watching her pennies and making her dollars count. Competitive shopping among the consumers is back," she said.

Short Adages

by R. O'MATTICK

SUMMER vacations are over for everybody—well, nearly everybody! Back from sight-seeing trips and golf-links and tennis courts and easy deck chairs is the army of the members of our Industry. Until next year—except for those fortunate enough to squeeze in a winter vacation—the blenders and distillers of perfume oils—the matchers of colors—designers of bottles and labels—the importers and exporters—the workers and the executives and the serious people—will have to buckle down to real work to obtain raw materials and get going on production and advertising and promotion and the other myriads of things that must be done in the business of making women (and men, too) more and more attractive.

* * *

Our Statistical Department (it is remarkable how it gathers a whole bunch of numbers and converts them into the most artistic kinds of flowing curves and picturesque charts) informs us that 97.13 per cent of all those connected with this industry took vacations during this summer, varying in length from a week-end of 2.14 days to a season of 79.74 days. There are always about 2.87 per cent who never cease working. We were not able to get the comments of Dr. Rowmateral on the above situation as he is still away on vacation.

* * *

Whether four days or a fortnight, most of us are back to work casting around for castor oil, begging for boxes and bottles—trying our best to keep things going.

* * *

Of course, it wouldn't do at all for us to mention any names but we do not think that we are breaking a confidence to divulge this interesting bit of information. A survey made among the girls behind the perfume counters in the Department Stores (and they are the girls who ought to know) reveals that the two best selling perfumes on the market to-day

are both of similar type and both on the oriental side. Neither of these perfumes makes any wild promises but each of them has what it takes. We have always maintained that most American women who buy quality perfumes cannot be fooled and that there are a few things about perfumes which are better understood by makers of perfumes than by the "experts" of various Consumer Research Groups.

* * *

Some of the latter gentry, to borrow a favorite term of H. L. Mencken, think that all you have to do is to fill an attractive bottle with some nicely colored and highly polished water, give it a glamorous name and then merely worry about the tax deductions that can be claimed after reaping the profits that mount up from a 1000 per cent mark-up.

* * *

The Florists Telegraph Delivery Association held a Convention in New York during the month of August. We were invited to attend by a friend who thought we might want to pick up some ideas for the benefit of the TGA Convention. —And we did! You did not have to be there to notice the signs along Fifth Avenue and the other main thoroughfares, welcoming the members of the Convention. There is one idea already. Another effective piece of business was when the Mayor of New York received a bouquet of flowers from the Mayor of San Francisco when

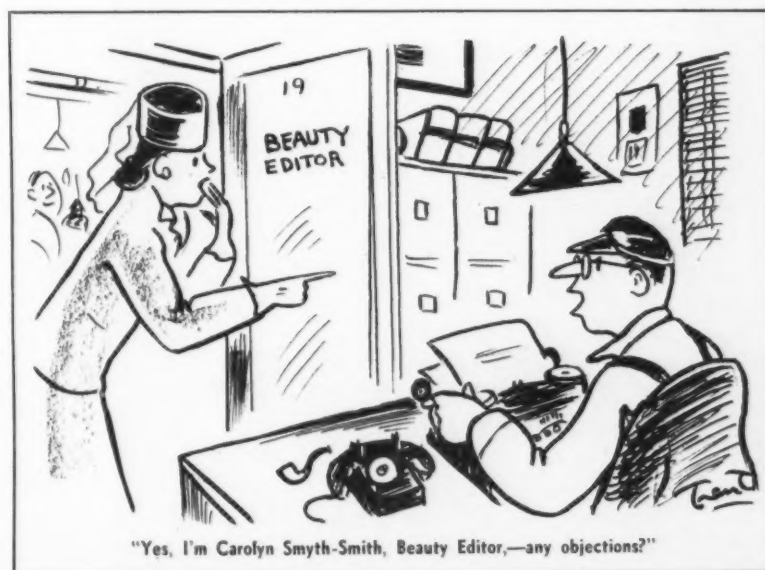
both of their Honors addressed the opening session. How about the Governor of California handing a bottle of Men's After-Shaving Lotion to the Governor of New York at the next Convention of the TGA. Or better—to the Governor of a rugged State like Utah or Idaho, where men are men and could use After-Shaving Lotions nonetheless.

* * *

A recent copy of *The New Yorker* has quite an interesting column about "Smells". It mentions the work of Mr. Joseph Breitenbach who is said "to be the only man in the world who photographs smells." A friend of his, who is a botanist, was trying to find out why flowers smell and told Mr. Breitenbach of his experiments. They both agreed that smells are caused by minute particles of matter and Breitenbach undertook to make photographs of these particles. His method is very costly and secret but he has shown photographs of the smell of roses and garlic and cloves and camphor. "The smell of roses is umbrella-shapes, that of camphor is a round compact cloud."

* * *

We dread to think of the day when a fine perfume will be put in front of a camera—a lever pulled—a plate developed and then the report that it contains 0.02 per cent patchouli, 5 per cent lavender oil, etc., etc., just the way things are done to-day with metallic salts and a spectrophotometer.



Packaging

MARY CHESS



MARY CHESS: Mary Chess has just launched her new perfume, Song. Her unique theme of the Mary Chess chessmen is represented in the beautifully shaped, clear glass bishop bottle.

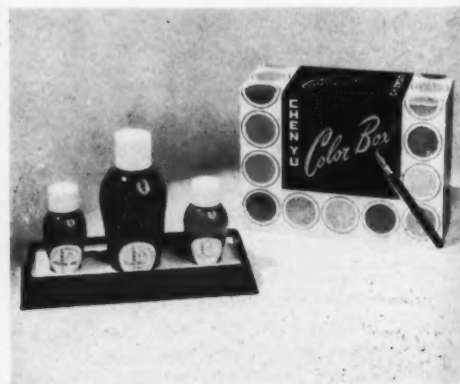
COTY: L'Origan, Paris and Emeraude are presented on a swing by Coty. The seats on which the bottles rest are red, blue or green with bows of the same color above the bottle. The two lucite poles are topped with red, white and blue streamers. The base of the swings is the bottom of the box in which the unit is presented.

COTY



CHEN YU: In a colorful new paint-box package, appropriately called the Color Box, Chen Yu presents three popular lacquer shades, Royal Plum, Pink Sapphire and Frozen Fire. Color Box carries out a paint-box theme—shiny black base and panel lettered in red, vivid discs of the three lacquer colors on the margin with black paint brush to complete the theme.

CHEN YU



MILO: A novel note in perfume packaging has been struck by Milo in its Parfumettes. Three perfumes, Tango, Fantasy and Her Highness, are presented in any one of seven motifs, carved out of mahogany and walnut, which comes packaged in a handsome carton harmonizing with the symbol of the carved motif.



MILO

HERB FARM SHOP: The Herb Farm Shopfront, designed after the Herb Farm Shop display window at its New York office, is both colorful and unique. This little shop contains three one ounce bottles of the Herb Farm fragrances.



HERB FARM SHOP

JACQUELINE COCHRAN: Jacqueline Cochran's Perk-Up Stick looks like a magnified lipstick case, one inch in diameter by three and one-half inches long. Five tiny jars fit together to form the one tube. Each jar contains a beauty aid, either cleansing, night, or special foundation cream, cream rouge and face powder. It is packaged with a tiny spatula for refilling the jars. There is an accompanying bottle of skin lotion.

SUZY: Ecarlate Ribbon Box, deluxe edition, makes its appearance for the first time. A bottle of Ecarlate perfume—in a clear glass head with a saucy Suzy sailor—bottles of Eau de Parfum and cream lotion, Bath Essence, and a box of dusting powder, are cushioned on red satin. The top of the box is tufted in red satin, and the tray for the collection can be lifted out, making the box a useful one. The white, round box has red gros-grain ribbon for trim.

JACQUÉLINE COCHRAN.



SUZY



FLAVORS

Terpene Alcohols as Flavoring Components

*A significant role can be
played by terpene alcohols
in the manufacture of flavors*

by MORRIS B. JACOBS, Ph.D.

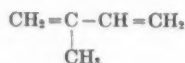
Adjunct Professor of Chemical Engineering, Polytechnic Institute of Brooklyn

FAVOR is a perception which is a composite, generally speaking, of four sensations. These are (1) true taste or sapidity, that is the effect of the material tasted on the taste cells, (2) smell or the olfactory sensation, (3) feel or the tactile sensation, and (4) the sensations of temperature. The more important of these in their actual influence on flavor are taste and smell. Thus the flavor of a carbonated lemon or orange drink is a result of the sweet taste of sugar, the sour taste of an acid, probably citric acid; the citrus odor; the tickling sensation caused by the escape of carbon dioxide gas; and the cold temperature of the drink.

Though the quantity of a terpene alcohol used in a flavor ester mixture is usually small, that small quantity plays a significant role because of the influence it exerts on the composite flavor sensation through the smell sensation.

TERPENES

The terpenes are generally colorless, pleasantly odorous compounds, volatile with steam, which appear to have isoprene, that is, 2-methyl-1,3-butadiene



as the fundamental building unit. The terpenes are classified as (1) hemiterpenes C_5H_8 or isoprene, itself, (2) terpenes $\text{C}_{10}\text{H}_{16}$, (3) sesquiterpenes $\text{C}_{15}\text{H}_{24}$, (4) diterpenes $\text{C}_{20}\text{H}_{32}$, and (5) polyterpenes $(\text{C}_5\text{H}_8)_x$. The terpene

hydrocarbons are noncyclic or open chain, monocyclic and bicyclic compounds.

TERPENE ALCOHOLS

Among the oxygenated compounds related to the terpenes are the terpene alcohols. These too can be classified as open chain, monocyclic and bicyclic compounds.

Not all of the terpene alcohols have found employment as flavor components but their interesting properties are worth noting.

When some of these alcohols were first isolated approximately one hundred years ago, they often were impure isolates. These impurities gave the same compound apparently different properties and just as often the same impure compound was given different names by divers investigators with a resultant amount of confusion. Some of this confusion persists to this day.

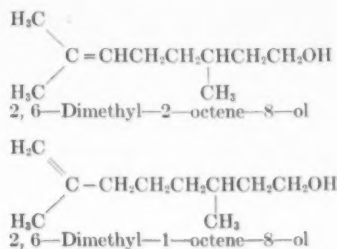
The terpene alcohols are used more commonly for the compounding of floral odors than for the formulation of flavor essences.

NONCYCLIC COMPOUNDS

The more important of the noncyclic terpene alcohols are citronellol, geraniol, nerol and linalool. Others which may be mentioned are isogeraniol and farnesol, and the mixture commonly termed Rhodinol.

d-Citronellol, 2,6-dimethyl-1 or 2-octene-8-ol (3,7-dimethyl-6 or 7-octenol), is a colorless, oily liquid with a rose odor and a bitter-grassy taste. While the physical properties of commercial products vary, they approximate

a specific gravity of 0.856-0.857, a refractive index of 1.456-1.460, an optical rotation of -2 deg. to $+4$ deg., and a boiling point of 222-225 deg. C. Citronellol is customarily obtained from Bourbon geranium and Java citronella oils for it comprises about 80 per cent of the latter oil.



Because of the difficulty in eliminating impurities, commercial citronellols vary considerably in odor.

Citronellol can also be obtained synthetically by the reduction of citronellal with sodium amalgam. A method has been described for its separation from geraniol by heating the mixture with 95 per cent formic acid. The latter decomposes the geraniol and forms citronellyl formate. Other methods of separation from geraniol and other components of the essential oils of which citronellol is a component are heating the oil to 250 deg. C. in an autoclave with water, and heating with phthalic anhydride. In both instances the geraniol is decomposed.

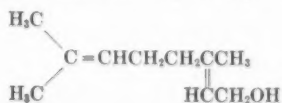
Citronellol is soluble in water-alcohol mixtures in the following ratios: 45 per cent, 1:33, 50 per cent, 1:20; 60 per cent, 1:4; 70 per cent, 1:2; and 90 per cent, 1:1. Citronellol has been recommended for honey flavors.

l-Citronellol which is obtained from geranium oil is an oily liquid with a relatively sweet taste and a more pronounced rose odor than *d*-citronellol. It has a specific gravity of 0.862-0.869, a boiling point of 225-226 deg. C., a refractive index of 1.4560-1.4561, and an optical rotation of -12 deg. *l*-Citronellol has a peach aroma; consequently this terpene alcohol has greater possibility for use as a flavor component and has been suggested for apricot, peach and pineapple formulations.

Rhodinol is a mixture of geraniol and citronellol obtained from geranium oil. The commercial product has a specific gravity of 0.860-0.885 and a boiling point of 225-226 deg. C. It has a tea rose odor, a bitter taste and a strawberry flavor; consequently Rhodinol can be used for berry flavor compositions such as currant, raspberry, and strawberry. It is often used in combination with phenethyl alcohol.

Analogous products of this nature are Reunilol and Roseol both of which are mixtures. As mentioned, the nomenclature concerning this mixture and citronellol has not been standardized. Some authorities assign the limonene formula of *d*-citronellol to *d*-citronellol, itself, while the terpineol formula is termed rhodinol.

Geraniol, 2,6-dimethyl-2,6-octadiene-8-ol, is a colorless liquid. Its odor and taste depend upon its source. Thus



when it is obtained from citronella oil, it has a bitter taste,

an odor resembling roses with a tinge of citronella, and a plum aroma. On the other hand, geraniol obtained from palma rosa oils has a sweetish taste, a pleasant rose-like odor and an apricot-peach aroma. The specific gravity of the commercial product is 0.883-0.889, it boils at 229-231 deg. C., and it has a refractive index of 1.476-1.478. Geraniol can be extracted from the oils mentioned above by dissolving in organic solvents the crystalline compound that it forms with calcium chloride. This addition compound is subsequently decomposed by water. It is insoluble in water but is soluble in water-alcohol mixtures in the following ratios: 50 per cent, 1:13; 60 per cent, 2:15; 70 per cent, 2:7; and 96 per cent, 1:1. Geraniol can also be obtained from essential oils in which it is a component by fractional distillation. This terpene alcohol is used in the preparation of apple, apricot, peach, pear, plum, raspberry, strawberry, and pineapple flavoring essences but its concentration seldom should exceed 2 per cent.

Isogeraniol, $(\text{CH}_3)_2\text{C}:\text{CHCH}_2\text{CH}:\text{C}(\text{CH}_3)\text{CH}_2\text{CH}_2\text{OH}$, is a liquid with a rose odor, a peach flavor and a "sweet" taste in contrast to citronella geraniol. It has a specific gravity of 0.879 and a boiling point of 102-103 deg. C. at 9 mm. This isomer which can be prepared from citral-enol-acetate has limited use in apricot, peach, and raspberry essences.

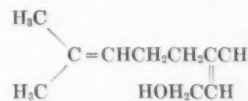
l-Linalool, 2,6-dimethyl-2,7-octadiene-6-ol, Licareol,



is a colorless liquid with an odor of lily of the valley but it also is reminiscent of both lemon and rose. Like geraniol, its taste and aroma depend on its source. Thus linalool obtained from cayenne oil is sweet with a plum-like aroma while linalool from coriander oil has the flavor of that oil. It has a specific gravity of 0.862-0.868, boils at 197-199 deg. C. with some decomposition, and its refractive index is 1.4604. Linalool is a principal component of linaloe oil and oil of coriander from which oils it is obtained by fractional distillation. Linalool is soluble in 45 per cent alcohol, 1:18; in 50 per cent, 1:15; 60 per cent, 2:9; and in 70 per cent, 1:2. This terpene alcohol is used in apricot, banana, cranberry, currant, date, malt, orange, orris, peach, pear, plum, pineapple, quince and raspberry flavor formulations but the concentration should not exceed 3 per cent.

d-Linalool or coriandrol is a colorless oil. It has a specific gravity of about 0.868 and a boiling point of 198-200 deg. C. Coriandrol is very slightly soluble in water but one volume of the alcohol is soluble in 10 volumes of 50 per cent ethyl alcohol. *d*-Linalool is employed in the same types of flavor compositions as its isomer *l*-linalool.

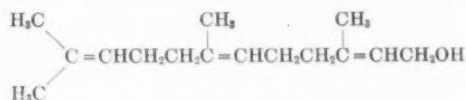
Nerol, as can be seen by a comparison of the



formulas is an isomer of geraniol being the trans form of 2,6-dimethyl-2,6-octadiene-8-ol. Nerol has a blander rose odor suggesting orange blossom, a bitter taste, and a rasp-

berry flavor. It has a specific gravity of about 0.881, boils at 226-227 deg. C. and is optically inactive. Nerol is soluble in 60 per cent ethyl alcohol in the ratio of 30:100. It is obtained along with terpineol and geraniol when linalool is treated with acetic anhydride. Nerol does not form a crystalline material with calcium chloride, which is a difference from the action of geraniol. This terpene alcohol occurs, chiefly in the form of its esters, in neroli, petitgrain, rose, and other essential oils. Nerol has been synthesized by the reduction of citral with sodium amalgam but the yield obtained by this method is poor. Nerol has been suggested as a component of raspberry and strawberry ester flavor mixtures.

Farnesol, 2,6,10-trimethyldodecatriene-2,6,10-ol-12,



is a liquid with a sweet taste and a pleasant, delicate odor which is strongly reminiscent of lily of the valley. Farnesol has a specific gravity of 0.885, a boiling point of 160 deg. C. at 10 mm., and a refractive index of 1.488-1.492. It has a confectionery flavor and has been suggested for use in apricot, banana, currant, gooseberry, lemon, peach, and raspberry flavor compositions.

In a subsequent article, the properties and uses of the monocyclic, bicyclic and polycyclic terpene alcohols will be discussed.

Flavored Notes


I received a query concerning a modifier for a coconut flavor. Gamma nonyl lactone is often used as a base for such flavors. Among the components which have been suggested for incorporation in coconut flavor ester mixtures are ethyl enanthate, octyl enanthate, ethyl laurate, heptyl methyl ketone, methyl nonyl ketone, hendecyl methyl ketone, caproic acid, caprylic acid, capric acid, myristic acid, and decyl alcohol. Two compounds which have a coconut aroma are α -hendecyl- γ -butyrolactone and α -dodecyl- γ -butyrolactone.

* * *

Nerolidol, an open chain sesquiterpene alcohol related to farnesol as linalool is related to geraniol, is a viscous liquid with a faint, pleasant odor. It has been used as a blending agent and fixative for floral perfumes such as lilac, lily and orange blossom but has found little use in flavor compositions.

* * *

While the olfactory sensation is far more sensitive than the sensation of taste, some authorities stating it to be 25,000 times as sensitive, the taste buds are more readily affected by off-tastes than the olfactory nerves are by odors.—M. B. J.



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Mandarin Oil Merits a More Extensive Market

The excellent quality of domestic mandarin oil should afford more extensive use as a characteristic flavoring material

by EVERETT L. SAUL, Ph.D.

Chief Chemist, Felton Chemical Co., Inc.

WHAT we have come to know as mandarins or tangerines in the United States are the oranges from which the skin may be so conveniently removed. In fact, this fruit has been appropriately called "kid glove" oranges. Mandarin appears to be the older name and according to Winton,¹ mandarin originated in China and tangerine in India. Today the names are used interchangeably, although the tangerine always has a deeper orange-red color than the mandarin. Confusion still exists in regard to the origin and botany of the mandarin and tangerine.

The mandarin orange (*Citrus reticulata*, Blanco²) is indigenous to southeast Asia and by the middle of the nineteenth century was well known in Italy and probably in Spain. About this time the Willow-Leaf or China mandarin was introduced into Louisiana by the Italian consul at New Orleans. It was later brought to Florida and California and after the introduction of several other varieties, commercial production assumed some importance in the early nineteen hundreds. The chief areas of mandarin cultivation in the United States are in Florida, Georgia, Alabama, Mississippi, Texas and California. Mandarins are grown extensively in Japan, China and Australia where they are much more highly appreciated than here.

RELATIVELY SMALL OIL PRODUCTION

The essential oil obtained from the mandarin has been produced in only moderate quantities in the United States and elsewhere. Sicily and Italy have supplied most of the world with mandarin for the past seventy-five years except during the recent war, while Brazil has meanwhile become a factor in the market. Domestic production, in all probability, does not exceed 10,000 lbs. per annum. Practically all of the oils have been obtained by expression of the fruit skins, either by the hand process or by machine. It is surprising that the excellent quality of domestic oil, with its fine characteristic flavor, has not found a more extensive market. The citrus flavors, orange, lemon, lime and grapefruit, have received such world wide popularity that the addition of mandarin would seem to follow naturally. In fact, mandarin or tangerine flavor has already achieved a considerable success in the form of a canned juice drink. The candy maker seems to have neglected the creation of a novelty flavor development—the mandarin lollipop, etc. The refreshing tang of the mandarin has yet to be intro-

duced to the line of bottler's drinks. Even the addition of mandarin to orange in concentrations up to twenty-five per cent and more, introduces a snap and gives an individuality to the flavor. To an increasing extent, mandarin is being used in sherberts and ices and the new flavor has met with real success. In the baking trade, mandarin flavor finds an excellent application to icings. Although the cost of mandarin oil is higher than that of orange, the new and interesting flavor qualities of the oil far outweigh this disadvantage. Primarily a flavor item, mandarin oil still commands an important place in perfume such as Eau de Colognes and the terpeneless oil possesses superb attributes which recommend its application to many types of perfumes.

As mentioned above, until the last war the largest and most important producer of mandarin oil was Italy. In Table I are given figures for the quantity of oil exported by the Italian government and imported by the United States from Italy. The total production of oil falls but little short of the total exportation. The price of mandarin

TABLE I
Mandarin Oil exported by Italy and imported by the
United States from 1913 - 1937

Year	Total export in lbs.	U.S. import in lbs.	Approx. total production
1913	2,010		
1914	2,160		
1915	2,660		
1916	4,050		
1917	5,390		
1918	4,750		
1919	8,890	1,710	
1920	4,580	2,020	
1921	3,070		
1922	6,060	2,140	
1923	9,360	2,470	
1924	8,820	2,270	
1925	10,670	3,780	
1926	10,670	5,850	
1927	15,100	3,050	
1928	15,000	3,900	
1929	13,500	970	
1930	19,900	4,470	
1931	11,900	3,830	
1932	10,400	4,310	
1933	14,700	249	
1934	16,100	895	
1935	19,400	2,680	21,000
1936	18,200	4,440	21,000
1937	19,900	1,070	21,000

oil seemed to be usually double that of sweet orange oil. The data in Table I are taken for the most part from the reports of Schimmel and Co.

ADULTERATION

In 1890 Schimmel and Co. obtained fifty kilos of mandarin oil mentioning the latter as being a rather rare product, employed mainly as a flavor ingredient. Five years later the genuine oil was claimed to be more or less a curiosity, the ordinary oil of commerce consisting chiefly of oil of orange. Berté and Gulli³ in 1905 stated that the oil is often adulterated with orange and lemon oils and terpenes. Orange Oil has remained the favorite adulterant.

The yield of Italian expressed oil has been given as about 400 grams for every thousand fruits. The normal Italian oils usually vary within the following limits: sp.gr. 15°/15° 0.853 to 0.855; α D 71 deg. to 74 deg. Occasionally the gravity falls to 0.852 and has attained an upper value of 0.859. Rotations as low as 65 deg. and as high as 76 deg. have been reported. The rotation of the first 10 per cent distillate is reported as being usually slightly lower to 2 deg. higher. The ester value varies between 5 and 11 while the evaporation residue ranges from 2.5 to 3.5 per cent. The oils are more or less turbid when dissolved in 7 to 10 volumes of 90 per cent alcohol.

Brazil produces some mandarin oil which has found a market in the United States. The analysis of genuine oils resembles more or less that of the Italian product. A distilled oil⁴ gave the following constants: sp.gr. 15°/15° 0.852; α 17°/D 74 deg. Distilled Japanese oil is stated⁵ to vary within the limits: sp.gr. 15°/15° 0.854 to 0.858; α 68 deg. to 92.5 deg. All of these oils exhibited the fluorescence characteristic of anthranilates, but the distilled oils have little commercial importance. Mandarins are cultivated to a considerable extent in Algeria. In 1901, 85 tons of fruit are reported to have been shipped while in 1922 the quantity was increased to 430 tons. Apparently little or no oil is produced.

DOMESTIC OILS SHOW DIFFERENCES FROM ITALIAN

Domestic oils differ from Italian and Brazilian in so far as the optical rotation and anthranilate content are

concerned. Florida machine pressed oils during the 1946 season have varied within the following limits: sp. gr. 0.850 to 0.856; α D 91 deg. to 95 deg.; n 20°/D 1.4730 to 1.4743; aldehydes as decyl aldehyde, 0.6 to 0 per cent; evaporation residue, 3.0 to 3.4 per cent; clearly soluble in 7.5 to 8.0 and more volumes of 90 per cent alcohol at 20 deg. The high optical rotation is evidently caused by the lower content of l-limonene. Diterpene hydrocarbons (apparently limonene) account for about 94 per cent by weight of the oil. The laboratories of the Felton Chemical Co. could not detect the presence of anthranilates either by acid extraction or by acid precipitation in ether solution. The existence of some anthranilate may be implied however, from the fact that when viewing a colorless steam-distilled oil through a glass tube three feet in length, a slight fluorescence could be discerned.

CHEMISTRY OF MANDARIN OIL

The first published chemical investigation of mandarin oil was apparently made by de Luca⁶ in 1857. He found the principal constituent to be a hydrocarbon $C_{10}H_{16}$ which he converted to the dihydrochloride. The hydrocarbon was later shown to be dextro limonene and the derivative, dipentene dihydrochloride. He observed a marked fluorescence in the oil fractions and by adding nitric acid to an aqueous alcoholic solution of some of these fractions, obtained small amounts of a crystalline salt which he compared to quinine sulphate in the color of its water solutions. It would seem that he had formed the nitrate of N-methyl methyl anthranilate.

In 1891 Schimmel and Co.⁷ reported the presence of small amounts of citral in the distillation residues of a Messina oil. It was isolated by means of sodium bisulphite but not identified. Gildermeister and Stephan⁸ in 1897 studied a Sicilian oil characterized by the following constants: sp.gr. 15°/15° 0.855; α 16°/D 69.9 deg. They identified as the chief constituent d-limonene as the well defined tetrabromide melting at 104-105 deg. and confirmed de Luca's preparation of dipentene dihydrochloride, m.p. 49 deg. In an effort to prove the existence of citral, these authors attempted to prepare the naphthocinchonic acid but were unable to obtain a compound of constant



Truckloads of mandarin oranges ready to be processed for oil



Machine presses for extracting oil from mandarin orange peels

melting point. The presence of citral therefore cannot be considered as established.

Flatau and Labbe⁹ in 1898 reported that a Portuguese mandarin oil contained 98 per cent limonene, a trace of citral and 1 per cent ester, but gave no further details.

The presence of N-methyl methyl anthranilate was conclusively proved by Walbaum¹⁰ in 1900. He isolated the ester which was present in quantities somewhat less than 1 per cent, by extractions of concentrated mandarin oil with dilute aqueous solutions of sulphuric acid. From the ester he obtained the corresponding acid, m.p. 178-179 deg. and by analyses of its silver salt and derivatives, established its identity with the known synthetic product.

Schimmel and Co.¹¹ in 1901 now claimed that the known constituents of Italian expressed mandarin oil were the following: d-limonene, N-methyl methyl anthranilate, n-decyl aldehyde, n-nonyl aldehyde, citral linalool and terpineol. At this time there existed no published evidence to support these conclusions except insofar as the first two ingredients were concerned. The anthranilate ester is emphasized as imparting to mandarin oil one of its most characteristic organoleptic qualities.

The first investigation of a domestic oil appears to have been conducted by Nelson¹² in 1934. The author expressed the oil from the Dancy variety of Florida tangerine and cautions against confusing this product with that derived from the common mandarin. This warning to regard the Dancy tangerine and the mandarin as different botanical species is difficult to reconcile with some views expressed by Webber and Batchelor.² The constants for this oil were: sp.gr. 20°/20° 0.8493; α D 92.5 deg.; n 20°/D 1.4762. Nelson identified d-limonene, present to the extent of 95.8 per cent as the tetrabromide; n-octyl aldehyde and n-decyl aldehyde as the semicarbazones; and linalool as the carbamate. He suspected the presence of citral, citronellal and cadinene but reported no derivatives. In contrast to the observations on Italian mandarin oils, he obtained negative tests for anthranilates on the Florida oil. The latter result is of great interest in view of the repeated statements in the literature maintaining the organoleptic importance of N-methyl methyl anthranilate.

CONCENTRATED OILS

A concentrated Italian mandarin oil has been reported as possessing the following properties: sp.gr. 15°/15° 0.930 — 0.960; α 15°/D 10 deg. to 21 deg.; aldehydes as decyl aldehyde, 15-20 per cent; esters as linalyl acetate 25-30 per cent; soluble in 2-3 volumes of 80 per cent alcohol. A concentrated Florida oil prepared by the author in a 3 per cent yield, from which all non-steam distillable material and practically all limonene were removed, analyzed within the limits; sp.gr. 15°/15° 0.859-867; n 20°/D 1.4730-1.4741; α D 55 deg. to 65 deg.; aldehydes as decyl aldehyde 12.5-16.6 per cent; esters as linalyl acetate 4.5-5.0 per cent; esters after acetalization as linalyl acetate 19-20 per cent; soluble in 2.5-3.0 volumes of 90 per cent alcohol at 20 deg. The high optical rotation as well as the insolubility have been shown to be caused by the presence of dextrorotatory sesquiterpenes.

The oils distilled from the leaves of the mandarin tree are of interest because of the high content of N-methyl methyl anthranilate, which has been reported as high as 69.5 per cent.

¹ The Structure and Composition of Foods, Vol. IV. Andrew L. Winton and Kate Barber Winton. John Wiley and Sons, Inc. N. Y., 1939.

² The Citrus Industry, Vol. I. Edited by Herbert John Webber and Leon Dexter Batchelor. Berkeley and Los Angeles: University of California Press, 1940.

³ E. Berté and S. Gulli, "Sull'analisi della essenza di mandarino," *Messina*, 1909.

⁴ Ann. Rept. Essential Oils, Synthetic Perfumes, Schimmel and Co. 1896, 62.

⁵ Ibid, 1914, 21.

⁶ S. de Luca, *Compt. rend.* 43, 904 (1857).

⁷ Ann. Rept. Essential Oils, Synthetic Perfumes, Schimmel and Co. 1891

⁸ 52, 67.

⁹ Eduard Gildemeister and Karl Stephan, *Arch. Pharm.* 235, 583 (1897).

¹⁰ J. Flatau and H. Labbé, *Bull. soc. chim.* (3) 19, 364 (1898).

¹¹ Henrich Walbaum, *J. prakt. Chem.* 62, 135 (1900).

¹² Ann. Rept. Essential Oils, Synthetic Perfumes, Schimmel and Co., 1901, 26.

¹³ E. K. Nelson, *Am. Perfumer*, 20, 34 (1934).

Sugar Grinding in the Philippines

Philippine production of centrifugal sugar from cane ground at centrals during the 1945-46 milling season totaled 12,287 short tons, according to the Philippine Sugar Administration. In addition, the five operating mills made 550 tons of centrifugal sugar from muscovado which they purchased for melting, bringing the total output to 12,837 tons. Grinding began on December 17, 1945, and continued, with interruptions, to May 25, 1946.

The Philippine Sugar Administration has been notified that 13 mills hope to grind cane for centrifugal sugar during the 1946-47 season. It is doubtful whether all will realize their hopes; on the other hand, several mills may grind which have not yet expressed such intentions.

Sugar mills do not have a clear outlook regarding the quantity of cane they will be able to obtain for grinding next season. This is dependent on the extent to which cane will be used for planting and for muscovado and on the financial, transportation, and labor situation prevailing at the end of the year. June reports indicate that production of 66,000 tons of centrifugal sugar may be possible, a considerably lower figure than that given in earlier estimates.

Sugarcane Cultivation, U. S. S. R.

Soviet agricultural experts have demonstrated that sugarcane can be grown in the southern areas of Tadzhikistan, Uzbekistan, and southwestern Turkmenia, the Soviet press reports. Tadzhik experimental plantations are said to have yielded between 80 and 100 tons of cane per hectare.

After a period of comparative inactivity, caused by the war, cane cultivation is being resumed. Immediate plans include sugarcane plantations at the Denauski experimental station in Uzbekistan, where 16 hectares are already set aside for cane seed plots. This projected State Farm will have its own pilot refinery.—*Foreign Commerce*.

Increase in Argentina's Sugar Crop

Argentina's sugar production this year is estimated at 530,000 metric tons—a significant increase from last year's output of 449,000 tons. The Argentine Department of Industry and Commerce stated that the current crop should end the sugar shortage and exceed domestic needs by about 100,000 tons.—*Foreign Commerce*.



The Answer to the Question:
"What Can I Use in Place of
HYDROXYCITRONELLAL?"

Hydroxycitronellal continues to be in short supply. And the prospects for increased supplies in the near future are not at all promising. However, there is a way out of this impasse: discriminating perfumers who have examined and compared the odor and fixative properties of Hydroxol 1696 have found that there is no let-down in the quality of fine compositions in which this product is used in place of Hydroxycitronellal.

Hydroxol 1696 is definitely worth examining. Samples will be supplied gladly.

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SOAPS

Sodium Lauryl Sulfate as an Emulsifier

Sodium lauryl sulfate and its allied products are used in soapless shampoos . . . A concentration of sodium lauryl sulfate may prove useful to dermatologists to destroy bacteria

by JOSÉ MACIAS-SARRIA, Ph.G., B.S.

A TREMENDOUS increase in the use and production of surface active agents has occurred during the last 15 years. Surface active agents were not available commercially before 1930, although sodium lauryl sulfate, the most typical "anionic" surface active agent today, was discovered in 1836 by Dumas and Peligot. Regardless of its early discovery, sodium lauryl sulfate remained a chemical curiosity for many years. World War I advances in chemical engineering and allied fields, made it possible in the 1930's to produce pressures of 10,000 to 15,000 lbs. per sq. in.

With the use of these pressures new commercial processes became possible, such as the conversion of fats into fatty alcohols. In this way technical cetyl alcohol became available commercially, its sulfonation to produce sodium lauryl sulfate followed that.

In 1941, the production of surface active agents reached 100 million lbs., (it was not produced in 1928).

In the field of cosmetics, surface active agents were first introduced to replace sulfonated oils in shampoos and as foaming agents in bath preparations. In 1937, McDonough, speaking of this particular use of surface active agents, wrote the following paragraphs in his book, "Truth About Cosmetics": "Products of this type have not as yet been on the market long enough to be thoroughly appreciated."



José Macias-Sarria

The introduction of sodium lauryl sulfate or very close allied products in shampoos, produced some unfavorable comments and Carpenter reported in 1934, dermatitis on the hands of a beautician, which was proved to be a result of contact with "hymolal" salts, a product said to be "a combination of sulfonated alcohols of high molecular weight combined with an alkali to form the neutral salt."¹

When in the 1930's, dermatologists and cosmetic chemists became influenced by the vogue of pH factors and pH instruments, cosmetic chemists initiated a search for a neutral emulsifying agent which would not conflict with the acid pH of the skin. By that time we had at our dis-

posal the series of weak emulsifiers known as glycol and glyceryl fatty acid esters, which are now classified as "non-ionic" surface active agents; individually they do not possess the potency to serve as sole emulsifiers, consequently soaps containing triethanolamine or potassium and sodium had to be used in order to obtain emulsification. These creams were still on the alkaline side.

LANETTE WAX SX

The use of sodium lauryl sulfate was reported by Dr. P. B. Mumford,² by Godfrey Bamber,³ and also by J. Soulsby and W. N. Goldsmith.⁴



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The writers speak of Lanette wax SX as a mixture of palmityl (cetyl) and stearyl alcohols with about 1 per cent of their phosphated esters. (They used the sulphated esters at first, but found the phosphated superior.)

The amount of sodium lauryl sulfate in Soulsby's "Protective Normal Cream," is 2 per cent.

Further advantages are attributed to the new emulsifier besides its lack of incompatibilities. It is claimed that ointments prepared with it are not shielded from the skin by serous discharges; moreover, these ointments can be readily removed from the skin with water. The cosmetic industry has greatly benefitted from these developments and numerous instances, which have been published in the trade journals of the industry, could be cited.

The English chemist Ralph G. Harry in his book "Modern Cosmeticology,"⁵ provides more than any other author the widest introduction of surface active agents I have found to date. He is, as are most of the French authors, very prolific in the greaseless creams of the vanishing cream type. To the American chemist, technically speaking, the greaseless creams are the easiest to prepare. On the other hand the most difficult creams to prepare in this country are the greasy creams of the cold cream type which seem to be the most popular with the American public, (cleansing cream, melting creams, all purpose creams and night creams are examples). Harry's book lists not more than 12 formulas of these creams and all of them are of the old borax type. Only one of these formulas is notable since it includes a small portion of triethanolamine lauryl sulfate (Sulphated Lorol T. A.). On the other hand his vanishing creams all contain varying amounts of surface active agents. One of these has over 1.2 per cent of sodium lauryl sulfate. In some of his shaving creams, 4 per cent sodium lauryl sulfate is used.

In conclusion to my remarks on Harry's book, I would like to quote the following paragraph on sodium lauryl sulfate: "As regards to its toxicity, Procter and Gamble (*Drug and Cosmetic Industry*, Nov., 1936—p. 657) reports that leading tests with rats and dogs in which even 2 per cent of sodium lauryl sulfate has been incorporated have produced no ill effects even over a considerable period of time. These compounds were followed through the animal body and found to be broken up and absorbed by the animal." The findings published by the J.A.M.A.¹³ seem to conflict with the above statement. In 1940,⁷ a leading raw material manufacturing company in this country stated in its bulletin on sodium lauryl sulfate that for toilet preparations "used in conjunction with cetyl alcohol, technical, constitutes an excellent emulsifying system for cosmetic creams." As a typical cream they offered a formula known as "Schiller's Water Soluble Ointment" which contains 1 per cent of technical sodium lauryl sulfate (work presented by Werner W. Duemling, M.D. to the Amer. Academy of Derm. and Syph., Dec., 1940.)⁶

A BEAUTIFUL CLEANSING CREAM

With all this information on hand many chemists on this continent started to experiment with sodium lauryl sulfate as the neutral emulsifier which could produce neutral and slightly acid creams. Since the American market is for fatty creams, as stated before, the work was concentrated on the production of a greasy cream of the cold cream type. To hold the emulsion I found that the most desirable low concentration of sodium lauryl sulfate was

3 per cent. And here I offer a formula for an ideal white, melting, cleansing cream:

Mineral oil (med. vis.)	52.
Petrolatum (white)	8.4
Paraffin M. Pt. 133-35	5.
Cetyl alcohol, tech.	3.
Sodium lauryl sulfate, tech. (cosmetic grade)	3.
White beeswax	5.6
Dist. water	23.
	100.

My greatest disappointment came when this otherwise ideal cleansing cream caused skin irritation.

When two women applied it to their faces, the above oily cream with a 3 per cent concentration of sodium lauryl sulfate, caused a burning of the eyelids and after three days' use, edema of the eyelids and burns around the lips. The skin began to peel at the edge of the lips, around the nose-base and in the "character" lines from the nose to mouth. Patch tests were then performed on the thighs of these women. While the skin did not turn red after 48 hours, the day following the removal of the patches the skin showed that it had been burned and wrinkled and showed signs of peeling. Patch tests were then performed on 11 persons, 5 men and 6 women; a leading dermatologist supervised the second series of tests. An aqueous solution of sodium lauryl sulfate was used in a 0.1 per cent, a 1 per cent and a 3 per cent concentration. Also an emulsion composed of 1 per cent cetyl alcohol, with 2 per cent mineral oil U.S.P. and 1 per cent sodium lauryl sulfate. An additional patch of a 3 per cent dioctyl ester of sodium sulfosuccinate was also made. For the tests on the men, the backs were used and for the women, the thighs. Of the 5 men, only one showed very positive burning with the emulsion. Of the women, two showed positive reaction, one to the emulsion as well, and the other to an extra patch of the 3 per cent cleansing cream. This last test produced a decided burn. A member of the Faculty of the University of California College of Pharmacy in San Francisco, reported to us that when testing shaving creams on himself he found that he could not tolerate even a 0.5 per cent concentration of sodium lauryl sulfate. In fact the contact with a finger wet with a 0.5 solution of sodium lauryl sulfate produced an irritated strip on his arm, which occurred immediately after contact.

The outbreak of World War II in this country cut off additional experimentation with these compounds.

COMMENTS

A significant fact proved by the patch tests is the fact that the cold cream and liquid emulsion caused a more positive reaction than the solutions did. Lane and Black in speaking of the irritation due to fatty acids state:⁸ "It is possible that a person who is thought to be hypersensitive to alkali alone is not showing the hypersensitivity to the alkali itself but to the fatty acids naturally occurring in the skin in the presence of the added alkali." In such cases, the deeper penetration of fats into the skin by the use of sodium lauryl sulfate (this increased penetration was since proved by Duemling) would explain the added irritation.

The pH of the sodium lauryl sulfate solutions used in the patch tests is as follows: 0.1 per cent solution, pH 7.22; 1 per cent solution, pH 7.95; 3 per cent solution, pH 8.57. Lane and Black conclude, however, that the pH as a factor is secondary to agents contained in the product which may be more irritating. With respect to the effect of alka-

linity, Dr. A. Carleton, as far back as 1933,¹⁴ testing greaseless alkaline creams, reported favorable results; the cream proved harmless on 24 of 40 patients; caused improvement in 12 cases, was slightly irritating in only 2.

CONCLUSIONS

Sodium lauryl sulfate and its allied products are used in soapless shampoos, but these shampoos are not used daily and due to rinsing, are not left on living tissues in sufficient concentration to cause irritation. As a sole emulsifier in cold creams, sodium lauryl sulfate has to be used in concentrations of 3 per cent, at which concentration it proved irritating.

In greaseless creams the concentration of sodium lauryl sulfate can be reduced to a very low percentage, less than 0.5 per cent, as a high concentration is not necessary for successful results.

A higher concentration of sodium lauryl sulfate might prove useful and desirable to dermatologists in their fight to destroy bacteria since (a) the surface tension of the liquid phase has been reduced, producing larger areas of contact with their bactericidal agents (this point will be discussed shortly); (b) higher detergency of diseased areas; (c) compatibility with serum discharges and simple removal by water.

DERMATOLOGY AND COSMETICS

At this point it is well to remember that a product which might prove desirable to a dermatologist, might not be suitable for cosmetic use. From Mumford I quote the qualities the dermatologists are seeking for their ideal base. It should be (1) easily washed away with water; (2) stable and compatible with most medicinal ingredients; (3) therapeutically effective and capable of penetration; (4) non-greasy; (5) odorless; (6) non-irritating; (7) non-staining; (8) neutral in reaction; (9) easy to manipulate or compound; (10) non-toxic.

It is easy to see from the above specifications that Lanette wax SX bases fulfill their requirements, farther and more satisfactorily than a cold cream of the borax type, which is incompatible with most medicaments.

In fact, these Lanette wax bases are now used very frequently in pharmacy. They are known today as washable or straight hydrophilic bases. They are to be introduced into the U. S. Pharmacopoeia under the name of absorbent base type ointments. Without going to details about the pharmaceutical aspects, I want to point out that the incompatibility of this base with few medicinals might possibly be overcome by increasing the amount of sodium lauryl sulfate plus the addition of another emulsifier such as glyceryl mono-stearate.

My second point is that if sodium lauryl sulfate, as well as other anionic surface active agents, is used to increase penetration and raise the antiseptic value of some common antiseptics, it will not do so in all cases, (unsuccessful with phenol, cresol, tr. of iodine, when it causes precipitation) and those antiseptics favorably affected are improved only under certain conditions. To produce a wetting or penetrating property a dilution of 1:1000 or less of sodium lauryl sulfate is sufficient.

THE COSMETIC VIEW POINT

In contrast with the dermatological requirements, I quote from a cosmetic author, the ideal properties of a

cleansing cream. I have added requirement number one, which because of its overall importance was understood to be included by the author.

(1) It should be non-irritating, in all cases and circumstances of daily use by normal people; (2) It should liquefy at body temperature; (3) Its viscosity should be low enough to permit easy spreading; (4) It should penetrate the epidermis (via natural openings) and contain enough light oils to permit flushing of pores; (5) It should be an emulsion type with a small percentage of water; (6) It should possess a mild bleaching quality; (7) It should leave the skin: (a) smooth; (b) relaxed; (c) refreshed; (d) non-greasy; and (e) clean. (8) It should contain no chemical that would be quickly absorbed.

The above dermatological and cosmeticological requirements clearly point out the differences in the nature of an ideal cream for either category. At this point it is worth mentioning that the indiscriminate concentration of surface active agents used in some cake makeups, has made them irritants to some skins. Wetting agents are most needed here but they should be used at their lowest possible concentration. The American Pharmaceutical Association in its Bulletin Vol. X, No. 8-9, 1942 ask for contributions and reports on the use of surface active agents. There have been only a few to date and I believe that this article might help to remind one of the need of such reports. Patch tests, as those outlined by the Public Health Dept.¹² should be performed on all new emulsifiers in different concentrations against a known cosmetic standard, the U.S.P. Cold Cream.

In conclusion, I wish to mention that Mumford, the pioneer in Lanette wax SX, regardless of his enthusiasm and endorsement of this product, has these words in his first article: "Preparations with which most of us are familiar in our bathrooms and laundries are examples of organic sulphonates or sulfuric acid esters. They do, however, appear to remove natural fat from the skin and therefore may act as irritants. The writer has seen several cases of dermatitis due entirely to these substances and has indeed himself suffered from dermatitis of this origin from their use in his own bathroom."

I, carried away with my enthusiasm for sodium lauryl sulfate, was not aware of this statement, until after I had suffered my unfortunate experiences here discussed. (THE AMERICAN PERFUMER does not sponsor individual products. It is not our purpose to do so for the trade names appearing in this article. Editor)

¹ Carpenter, C. C. "Dermatitis Produced By Hymolal Salts." Arch. Derm. & Syph. Vol. 30:517 (Oct.), 1934.

² Mumford, P. P. "Emulsifying Bases in Dermatology." Brit. Journ. Derm. Syph. Vol. 50:540 (Oct.), 1938. Same author. Brith. Med. Journal. Feb. 11, 1939.

³ Hamber, Godfrey. "Notes On Some Ointment Bases." Brit. Journ. Derm. & Syph. Vol. 52:21 (Jan.), 1940.

⁴ Souleby, J. "Emulsifying Bases." Brit. Journ. Derm. & Syph. Vol. 52:25 (Jan.), 1940.

⁵ Ralph G. Harry. "Modern Cosmetology." 1940 Ed. Chemical Publishing Co., Inc., N. Y.

⁶ Duening, Werner W. "Wetting Agents." Arch. Derm. Syph. Vol. 43:264 (Feb.), 1941.

⁷ Emulsifying With Fatty Alcohol Sulfates, 1940. A Bulletin. Du Pont Co., Wilmington, Del.

⁸ Lane, C. G., and Black, I. H., Committee on Cosmetics. "Cutaneous Detergents." J.A.M.A. Vol. 118-p. 804 (March), 1942.

⁹ "Lanette Wax SX." American Prof. Pharmacist, Vol. 11:325 (April), 1943.

¹⁰ "Hydrophilic and Absorption Bases." Amer. Prof. Pharmacist. Vol. 11:236 (March), 1945.

¹¹ Fischer, C. V. "Influence of Wetting Agents On Various Antiseptics." Amer. Journ. of Public Health. Vol. 32:389, 1942.

¹² Schwartz & Peck. "The Patch Test in Contact Dermatitis." Public Health Reports. Vol. 59:546, 1944.

¹³ "Medical Use of Detergents." J.A.M.A. Vol. 126:1152 (Dec.), 1944.

¹⁴ Carleton, A. "The Uses and Dangers of Cosmetics." Brit. Med. Journ. Vol. 1:999, 1933.

¹⁵ Woodward, J., and Calvery, H. "Toxicological Properties of Surface Active Agents." Toilet Goods Asso. Proceedings of the Scientific Sec. No. 4 (June), 1945.

Modified Rosins

by PAUL I. SMITH

ASSUMING growing importance in present day soap manufacture are the so-called modified rosins, such as hydrogenated and dehydrogenated (disproportionated) types. These offer worthwhile advantages over the ordinary gum and wood rosins and it is convenient to summarize these as follows:

1. They possess a lighter color than ordinary rosins and are, therefore, suitable for a wider range of soaps.
2. By the use of these additives the soaper is assured that there will be no increase in skin irritation. Ordinary rosin has sometimes been the subject of criticism owing to the sensitivity of the skin to certain rosin soaps.
3. The improved oxidation resistance of these modified rosins has been commented upon by some manufacturers. This is claimed by some authorities to be due to the high percentage of dihydro and tetrahydro-abietic acids in hydrogenated rosin and dihydro, tetra hydro and dehydro abietic acids in disproportionated rosins. To the manufacturer of toilet soaps this factor is of considerable importance, as such a large proportion of present day soap is made up of whites and light pastel shades.
4. The greater solubility of soaps containing dehydrogenated (disproportionated) rosin renders it suitable for liquid soaps which are in good demand.
5. Publicity given to the increased bacteriostatic value of soaps containing these modifiers has focussed attention on their inclusion for hospital use.

Manufacturers should not regard these modified rosins as offering a panacea for all their manufacturing ills. Rosins have always been subject to a certain amount of criticism on account of their tendency to render soaps somewhat soft and sticky, and their restriction to yellow bar laundry and special soaps. The modified rosins look like finding a more general use in the industry, particularly as they have been recommended for inclusion in toilet soaps up to about 10 per cent.

CHARACTERISTICS AND APPEARANCE OF ROSINS

It is useful at this juncture to describe briefly the appearance and characteristics of these new rosins. The hydrogenated compound is a solid, light in color, nonhygroscopic and characterized by remarkable resistance to discoloration and embrittlement by light and oxidation. Its softening point is 168 deg. F., that is, slightly less than regular rosin. Rosin manufacturers usually guarantee freedom from metal and uniformity of acid number from batch to batch. The dehydrogenated rosin is very similar in appearance to the hydrogenated rosin.

It is only natural that faced with an acute shortage of oils and fats, soapers should show great interest in those

additives, particularly superfatting agents, able to improve the quality of so-called austerity soaps. Enforced changes in origin and nature of oils and fats often introduce major changes in soaps produced from them, and, specially important are those changes in appearance, texture and emollient characteristics. It is not always a question of actual changes in the kinds of oils and fats used in the kettle, but variations in their proportions rendered necessary by fluctuations in supplies.

Lanolin is one of the most valuable aids to the soaper in his efforts to improve his product, especially if this happens to be a fairly high priced toilet soap. A small quantity of lanolin in soap acts as an anti-irritant and is, therefore, particularly useful where new fats and oils are employed. Then, again, this additive counteracts free alkali and facilitates milling and plodding. From the customer's standpoint, lanolin is of supreme importance as its presence improves texture and appearance, helps to develop rich, creamy lather, minimizes defatting effects and helps to relieve dry skin.

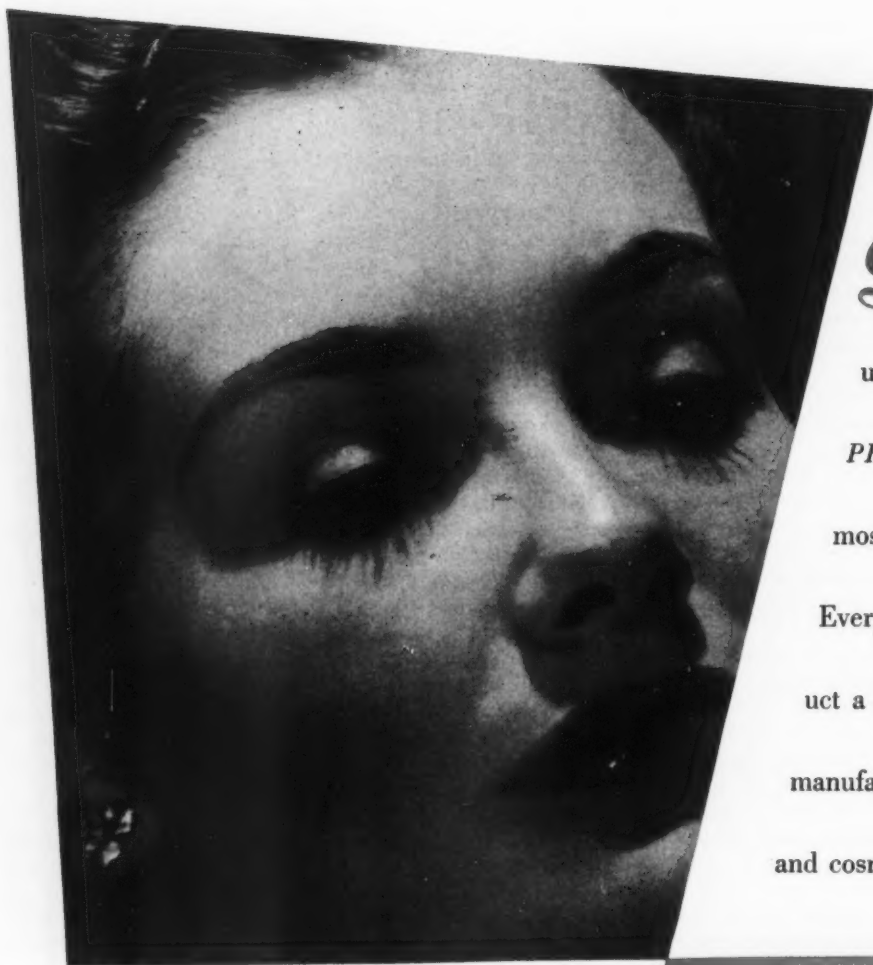
The presence of lanolin does not tend to lower the ageing properties of the soap, but it is most important that this natural free fat should be well and truly mixed with the soap so as to form a homogeneous mass. The amount of lanolin present should not exceed 1-2 per cent. If too much lanolin is present, the soap feels greasy and tends to form a scum on the water.

NEW SYNTHETIC DETERGENTS FOR SOAPS

Synthetic detergents, such as alkylaminosulphate and fatty acid amido azoline hydroxy acetate, are now being used to a greater extent than ever before in soaps, particularly special preparations, such as bubble bath formulations, washing compounds and textile assistants. Of the greatest interest at the moment is alkylaminosulphate. This type of synthetic resists the chemical action of lime, magnesium salts, acids and alkalies. It amalgamates readily with trisodium phosphate and is most suitable for incorporation in standard soap compositions.

Most of these new synthetic detergents are now available in the form of beads, which are white and free flowing. They are usually odorless and non-hygroscopic and compatible with alkalies and acids. Some are specially recommended for foam and bulk and usually have a bulk about 10 times that of soda ash.

Where soapers are preparing new toilet lines, such as bubble bath formulations, use should be made of a clear, synthetic base. For this purpose the fatty acid amido azoline hydroxy acetate is specially recommended owing to its cationic nature, high clarity, fast wetting and excellent detergent properties. To prevent turbidity the perfumes chosen for use with this synthetic should not contain any free acid groups.



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most exacting control . . .
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WASHINGTON PANORAMA

by ARNOLD KRUCKMAN

THIS letter is written about the Washington Panorama as it looks from the other side of the continent. These lines are typed in Portland, Oregon, after your correspondent has travelled a total of approximately 6,000 miles away from the banks of the Potomac, including the sidetrips. The rest of the journey, via Seattle and the Pacific Northwest, and the great mountain area as well as the old Northwest and the Great Lakes and Mississippi region, will cover another 6,000 miles before this type-writer again rests in its accustomed place in Washington, D. C.

It is a revealing excursion. The people in the Nation's Capitol are naturally concerned about the manner in which business and life shapes itself out through the country; but the primary interest of the people in Congress, in the Departments, and in the White House, is the anxiety, whether or not what they are doing is popular or unpopular. Their tenure obviously depends upon the approval of the people. It is not exactly news to report that what they are doing is NOT popular. But it may be useful to tell you why their actions are not popular.

OPINION AND OPA

OPA is widely regarded among businessmen as a necessary evil, but is badly administered and is chiefly conducted at present to create jobs for those who otherwise would not have jobs, or would not earn their daily bread quite so easily. You find, surprisingly, a universal sentiment that controls are necessary. In fact, whether you like it or not,—and most people in the East appear not to like

it—the business folk in the South, in the Southwest, and on the Pacific Coast, think some system of over-all Government controls for the common conduct of business is necessary. A carefully kept tally of almost two hundred business people in the South and all the way from Louisiana through Texas, New Mexico, California, and up to the chief city of Oregon, revealed that 95.6 per cent of those consulted want Government controls. This figure summarizes the opinions of manufacturers, wholesalers, jobbers, service industrialists, and retailers, who were interviewed in their home towns or on trains and in hotels. They feel that the price structure might be chaotic, and that the flow of materials and equipment and facilities is unsatisfactory without controls.

The one aspect of Government controls they are all peevish about is the work and expense involved in keeping records, and making reports, which they regard as almost useless. They suggest simple records and reports are obviously essential, but that the systems now imposed by Government agencies are so complicated that the majority of business people make the returns they think proper and simply ignore those they regard as pure red tape. There are no complaints about senseless enforcement as a result. Bear in mind, many dealers in cosmetics, perfumeries, and toiletries, out in this country, not only must make Federal returns, but have the burden of State sales taxes, and often local sales taxes, with their added tedious work.

Surprisingly, at least to this correspondent, in some States and some

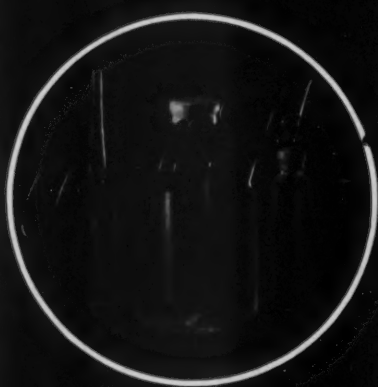
communities, the people who do large volume business do not want the sales taxes removed. They frankly tell you the system of collection enables them to make an added profit; the profit apparently is derived from the concession made by the State or community for the collection service.

SCARCITY OF FATS AND OILS

Wherever you go you are overwhelmed by bitter complaints about the scarcity of materials, glycerine, other fats and oils, as well as a wide gamut of the things your industry uses. Everywhere you are implored to help them do something about the shortage of containers, all kinds of containers. There are apparently few facilities, little equipment, in normal supply. Everywhere, in all businesses, you hear that help is very difficult to get, and that help is not worth half of what has to be paid for it. At the same time, wherever you go, you hear of huge numbers of veterans and others who are unemployed, and steadily draw compensation funds. Most business people in these farther reaches of the country seem hopeless about the ability, or the desire of the Federal Government to do anything about it. In these Far Western communities they simply accept the fact that things are poorly done, but they do not know what to do to make them better.

Nearer the Atlantic Coast, and in the area of the Gulf Coast, the business people reacted otherwise. They are angry, and they are proceeding to organize, or work systematically, to secure corrections. At one meeting nearer home, there were a number of business people, ranging from

Kimble NEUTRAGLAS Serum Containers



Serum bottles and vials of Kimble Neutraglas—highly resistant to solvent action and chemical attack—suitable for all types of closures—offer utmost protection.

For Assurance

• • • The Visible Guarantee of Invisible Quality • • •

KIMBLE GLASS COMPANY • VINELAND, N. J.
NEW YORK • CHICAGO • PHILADELPHIA • ST. LOUIS • BOSTON • INDIANAPOLIS • SAN FRANCISCO

bankers to retailers, as well as professional men, all of whom either individually, or in groups, almost daily were going to meetings of organizations to which they belonged, and at which they were hammering into their acquaintances the awareness that the business of Government was just as important to them in their daily life as is the detailed business of their firms, or their professions. They appeal to whoever will listen to forget party labels in the coming November elections, and to vote for the man or woman who is most competent and most sincere. They repeat over and over that it is more important to retain in Congress a good man who is a square shooter, and who knows the ropes, than to elect a new man who may belong to your favorite party but who does not know the machinery of Congress. They look for at least two critical years ahead, for which reason they think incompetents or novices will be a tragic liability.

Another phase of the Washington muddle that disheartens both Easterners and Westerners is what they designate as the lack of leadership. They are bewildered, confused, and distressed because there is no national guide. For this reason they want an umpire. And for this reason they welcome the news that the textile industry has started a movement to create autonomous self-governing industry bureaus, authorized by law, and blessed by the various Federal agencies which are expected to participate. This plan of the textile industry is designed to provide the industry itself with the power of fixing price levels, organize its own system of priorities to channel scarce materials and facilities. It is understood the Federal Government is expected to cooperate through the membership of the Federal Trade Commission, the OPA, the CPA, the Department of Justice, and other agencies. The bill creating this trade bureau is reported to be drawn and ready for submission to the Congress either at its special session, or at the regular session in January. It is expected the program will be applied to all units of the national economy, which would include the cosmetics, perfumes, toiletries, and flavors industries, in all their various aspects. Each industry would have its own board. The plan seems to

have some of the general outline of the NRA, but in effect it would seem to indicate a closer liaison between Government and business. Business men vehemently deny it is an approach to nationalization.

OUTLETS FOR FOREIGN TRADE

It may interest many of you to learn that New Orleans, and the Texas area of the Gulf Coast, are expected to be the scenes of one of the greatest booms in the history of the region. Apparently new people are moving in, with new substance, and fresh energy, and they are aiming at the potential trade with the Caribbean and South America, as well as other parts of the world.

You hear much about the promise of business in Australia, New Zealand, and, particularly, South Africa. Also there is much activity by our own people in various places in the Pacific, where we are apparently building great Government works. New Orleans is an amazing place, with its miles of new docks and warehouses. It is one of the most prosperous cities in the country. The same is true of the cities in the industrial areas of eastern and southern Texas. You hear no complaints.

On the Pacific Coast they tell you the sales volume remains higher than pre-war business, but that the sale of cosmetics, perfumes, and toiletries, has fallen off during the summer. They tell this in Los Angeles, in San Francisco, and in Portland. They say it is true everywhere on the Coast. But they do not seem to be particularly concerned. It is expected there will be a pick-up within the next month or two, and that the brisk business will continue indefinitely. The slump, moderate though it was, seems to have been present in all sales of every kind of commodity. The cosmetic, perfume, and toiletries people attribute the summer drop to the fact that people out here have been unable to get candy and similar gifts popular with women, and that they have so loaded up their girl friends with perfumes and toiletries that the market is temporarily glutted at the receiving end.

It may interest you also to learn that Los Angeles is regarded universally in the West as the pace-maker in retail transactions. It has numerous specialty shops, and it has a great number of distributors, and has

many brands of its own, not known in the East. It has a population approaching 3,000,000 in its greater metropolitan area, and has probably a scant additional 1,000,000 scattered between Santa Barbara and the Mexican border. Its most long-headed men think it might relatively soon reach the 10,000,000 which has been the estimate for the whole of Southern California for some years; the only fly in the ointment is a very large and desperately serious fly: water. It depends upon the Colorado River for the supply necessary to support its beehive of 8000 smaller industries, as well as to sustain its domestic needs.

The recent drought in Arizona and Utah, and elsewhere in the area, has revealed that the Colorado is not capable of providing the volume of water the experts estimated as certain; the other 6 States which also use the Colorado River supply therefore seek to sharply limit the future supply of Southern California, and base their contention on the fact that Southern California is outside of the Colorado River Basin, and is not entitled to more water. The issue will be fought out on the floor of Congress, and will undoubtedly be a long and desperate fight. Without water the present almost incredible growth of Southern California must stop; that is, unless the scientists make good their suggestion that they may be able to use atomic energy to convert sea water to sweet water.

Meanwhile, the people brought to Southern California, and other parts of the Coast, not only are not leaving but are bringing their fathers, mothers, uncles, aunts, and others even unto to the Biblical fourth and fifth generation. The West Coast, under the circumstances, does not welcome this unceasing addition of population, even with its great buying power, with unalloyed approval. Incidentally, the whole Coast is still swamped with tourists. They make travel uncomfortable by their numbers, and they clog the hotels. Also, of more importance to your industry, they seem to buy huge quantities of certain types of perfumes and toiletries, at the souvenir stands in the Coast hotels, and elsewhere.

CITRUS FRUIT INDUSTRY

Your friends of the citrus fruit industry and of the essential oils busi-

PEONY PARENTO



THE REFRESHING FLOWERY FRAGRANCE OF PEONY
PARENTO WILL IMPART DISTINCTION AND LASTING
APPEAL TO YOUR CREAMS AND LOTIONS AT
EXCEPTIONALLY MODERATE COST.

A SAMPLE WILL CONVINCE YOU!

COMPAGNIE PARENTO

INCORPORATED

CROTON • ON • HUDSON, NEW YORK

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ness are in the most representative brackets of the economy of the Coast. They make Los Angeles the Capital for their business. Your correspondent was a guest at a luncheon in the impressive California Club, sitting to the right of F. R. Wilcox, the Assistant General Manager and Treasurer of the California Fruit Growers Exchange. Mr. Wilcox was still vivid with memories of his duty tour in Washington (D. C.) during the war. All citrus fruit people anticipate that domestic orange oil and lemon oil will be in normal supply early in 1947. They do not appear to be very seriously concerned about competition from Italy or North Africa in the immediate future, especially after the experience of those who purchased the oil brought from Italy not long ago by the Government.

SOUTH AMERICAN COMPETITION

But there is distinct seriousness in their contemplation of the incipient competition from South America. Argentine and Brazil especially are considered a threat to domestic business. Apparently it is not the quality of the oil which gives reason for thought it is the attitude of our own Government. Mr. Truman and his advisers in various Departments, as well as in Congress, are convinced that we must take South America closely to our bosom in order to promote a hemispheric unity that may be developed into a tight military relationship. To this end the Administration will sponsor a law to provide the South Americans with what we can supply to make them better able to join us in the event of another war. But beyond that, it is the settled policy of Congress, as well as of the White House, to make the South Americans better Good Neighbors by giving them all the breaks human imagination can conjure in exporting their wares to us.

This means probably the same thing it unhappily means to the wool growers. This year's supply will exceed a billion pounds, double the nation's normal requirement. A large part of this is being brought from Australia. The growers Down Under can produce wool, ship it, and pay the low tariff, and undersell our own producers. The American wool growers sent a Committee to Washington to attempt to stop the ruinous prac-

tice. They met with various persons and finally wound up in a session with a Senatorial Committee. They were eventually told nothing could be done because the concessions to the Aussies were part of the very important Good Neighbor policy. They were offered subsidies to offset their difficulty; but last reports were that the subsidy project had not solved the problem. It is the principle involved in this incident that has prompted the citrus fruit people to begin a fight against too liberal concessions to the South Americans, or others.

BERGAMOT CROPS

It is reported the Italian Minister of Agriculture and Forests has authorized the bergamot growers to form an association which will be known as the Consorzio del Bergamotto, with headquarters at Reggio Calabria. The new organization has been directed to sponsor activities to improve and develop bergamot crops; to establish and implement a policy of production and utilization of bergamot essences, or oils; and to handle the collection of bergamot oils under the compulsory regulations of Italian law.

It is revealing that the Minister's directive empowers the new organization to manage the collective sale of the oils; the whole business to be managed by a Ministerial Commissioner, and the Consorzio is to be under the financial supervision of the Ministry of Agriculture and Forests. It is interesting that the Government official who is head of the Prefecture of Reggio Calabria will be the active and immediate director of the business of the Bergamot industry. It is quite clear that the Italian industry is rapidly being nationalized, possibly much more tightly even than the Industries of the United Kingdom and France.

Up here in the Pacific Northwest, in Oregon especially, but also in the State of Washington, the State Agriculture experts are working busily upon methods to improve the yield of peppermint, spearmint, and similar products. The States themselves are expending energy, money, and technical skills in demonstrating to the farmers how and why they should expand the crops. In fact, there are indications these people will devote much effort to the production of other

crops of interest to the essential oils industry.

RESEARCH FOR MINT CROPS

The scientists in the Universities of California, as well as in Washington and Oregon, and in Arizona, are spending much time on the problems. They have the land, and they think they have the climate. Also they think they may be able to solve the problem of low-cost, either by devising machinery, or by using labor which may not be otherwise employed, or may be partially employed in other efforts. Huge areas of lush lands lie in places that can be cultivated only during the periods when there is no danger of floods. There are such lands in the great Central Valley of California, especially in that part of it locally known as the Sacramento Valley. The Central Valley of California runs for over 1,000 miles, north and south, and east and west from ten to fifty miles wide. It includes some of the finest soil in the world. It is apparently capable of producing every month in the year. The flood areas are located in the vicinity of California's beautiful Capital, Sacramento. These lands lie between the dikes that protect the higher and more numerous acreage. The flood lands are capable of sustaining crops for years without incident. Only when the great floods come, are these lands inundated. It is clearly and specifically known when the floods may be expected, and when the time occurs the cultivators of the lower flood lands receive ample warning. But by reason of the fact that there is a limitation on the utility of the lands, their cultivators are permitted to use the acreage, under State lease, on much lower terms than apply to the lands which are permanently protected against floods. For this reason it is thought they may be used for the production of crops which bring a sharply lower margin of profit.

Finally, it may interest you to learn that most of the people out here accept the probability of another war as a certainty. They have a sort of fatalistic attitude of inevitability towards the prospect. They do not want it, but they seem to think if it must come, let's get it over. They invariably say the same thing about inflation.



The jar illustrated is AW-7161, especially suitable for cleansing and theatrical creams

WHEN BEAUTY COUNTS...

choose the container that enhances your product

Add to the distinction of your product by giving it a container with *individuality*. The standard Duraglas drug, chemistry and toiletry line contains more than 1400 different sizes and shapes. By choosing from this wide range, and adding a distinctive label, you get a container that is really your own!

A standard container gives you important savings

in original cost and on your filling line. And every standard Duraglas container brings you the additional advantages of maximum dependability and economy . . . handsome functional design.

Examine the Duraglas container line. You're almost certain to find a container that meets all your requirements. Write us for full particulars.

Duraglas CONTAINERS—Protectors of Quality

OWENS-ILLINOIS GLASS COMPANY, TOLEDO 1, OHIO Branches in Principal Cities

NEW PRODUCTS AND PROCESSES

Insecticide Concentrate

Powco Brand Pyrin D20, an effective general-purpose insecticide concentrate which gives finished space spray containing 3 per cent of improved Pyrin No. 20 and 1 per cent of technical grade DDT when diluted at one part Pyrin D20 plus 19 parts base oil, has been announced as a new product by John Powell & Co., Inc., 1 Park Ave., New York, N. Y. Pyrin D20 makes a finished space spray by merely mixing it with a base oil.

It is reported that when Pyrin D20 is used at the recommended dilution, the finished spray gives knockdown on flies equivalent to a 5 per cent pyrethrum extract, plus practically 100 per cent kill. It is said to be effective against most household crawling and flying insects.

Technical bulletin, popular bulletin and samples available upon request.

Oil Patchouly Seychelles

Schimmel & Co., Inc., 601 West 26th St., New York, N. Y., has announced that it is again in a position to supply prompt shipment of limited quantities of genuine oil patchouly.

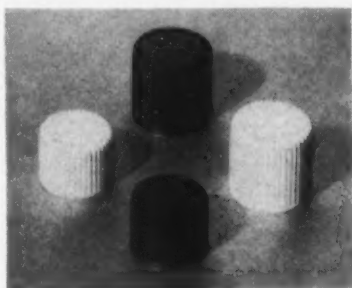
Aluminum Storage Tanks

Consolidated Products Co., 15 Park Row, New York, N. Y., is offering for sale 250 gallon welded aluminum tanks, which were recently built for the U. S. Government for the storage of drinking water. The tanks are oval shaped, 46½ in. and 28½ in. by 61¼ in. There is an 18-in. diameter quick-opening manhole in the top, and a bottom drain ½-in. plate. Tanks are located in Cincinnati, Ohio; Milwaukee, Wis., and Newark, N. J. Price \$125.00 each (crating extra, \$20.00 each).

Plastic Closures

The Empress, a new line of plastic closures which combine utility and beauty to a high degree, has been developed by the Closure Division of the Owens-Illinois Glass Co., Toledo,

Ohio. Empress closures, of urea formaldehyde and phenol formaldehyde composition, will be available in a variety of colors and in a wide range of sizes. The handsome ap-

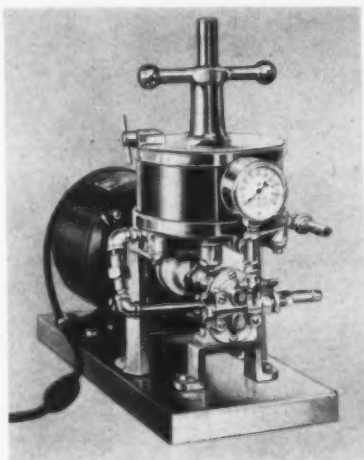


Empress' new plastic closures.

pearance of these closures makes them especially suitable for drug and cosmetic packages where an air of distinction is important.

Bench-type Filter

The Alsop Engineering Corp., Milldale, Conn., has announced a new bench-type filter incorporating many post-war features. It is of the "sealed-disc" type using asbestos discs which



The new enclosed bench-type filter

can be supplied in eight different grades of coarse or ultra-fine filtration.

The filter is completely enclosed, preventing loss of liquid by drip or

evaporation, and so designed that when the handle on the top is removed, the entire filter can be taken apart for easy cleaning. This model has a positive pressure rotary pump which is made with a capacity of from one to six gallons per minute, and with filtration areas of from 40 to 1200 square inches.

An Alsop centri-poise pump can be used and all parts touching liquid can be made of stainless steel, monel metal, bronze, etc., when liquids containing abrasives, carbon, filter aids or acids are handled. A folder will be sent without charge upon request.

Isopropanolamines Production

Expanded facilities for the production of the three isopropanolamines—monoisopropanolamine, diisopropanolamine and triisopropanolamine have recently been completed by Carbide and Carbon Chemicals Corp., 30 East 42nd St., New York, N. Y.

This new production now makes possible increased application of these amines as emulsifying agents and as sources for making synthetic detergents.

Information on the physical and chemical properties of the isopropanolamines and detailed methods of emulsifying formulae can be obtained by writing the company.

New Catalogs

W. J. Bush & Co., Inc., 11 East 38th St., New York, N. Y., is mailing its latest catalog to the trade.

Magnus, Mabey & Reynard, Inc., 16 Desbrosses St., New York, N. Y., has issued a new price catalog.

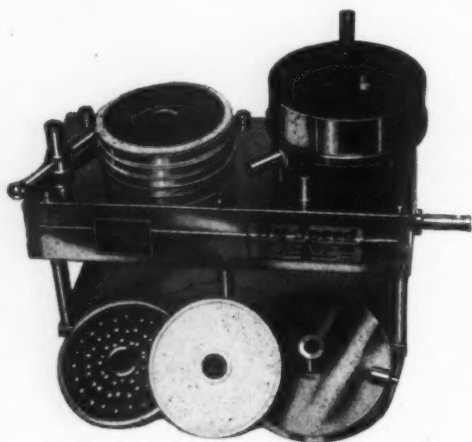
Heyden Chemical Corp., 393 Seventh Ave., New York, N. Y., has printed a new price list. Copies may be obtained without charge.

Fritzsche Brothers, Inc., 76 Ninth Ave., New York, N. Y., is distributing a new price list.

INVESTIGATE THE "Sealed-Disc" FILTER FIRST

A Quarter Century of development and research in the application of Filtration in practically every processing industry has contributed many features which make the "Sealed-Disc" Filter outstanding.

Thousands of these Filters are being used throughout industry on a wide range of tank capacities and liquid viscosities with speed and efficiency. That's why we suggest that you investigate the "Sealed-Disc" Filter first.



Notice how easily internal parts can be removed for cleaning. All parts touching liquid can be supplied made of Stainless Steel, Monel Metal, Bronze, etc.

NOTE THESE 4 FEATURES

- 1 Completely enclosed, air-tight unit, eliminating loss through leakage or even by evaporation.
- 2 Exceptionally small space requirement. For example, a 600 gals. per hour filter complete with electric pump requires only a 9" x 20" floor space—a 2000 gals. per hour machine requires only 12" x 24" of floor space.
- 3 Filter discs easily changed when clogged with dirt or when products handled are changed. A very few minutes does the job.
- 4 Sizes, with or without pumps, range from 1 g.p.m. to thousands of gallons per hour.

We invite you to use our Laboratory facilities, send complete details of your filtration problem to us. We shall be pleased to let you have our report and recommendations promptly.

ALSOP
ENGINEERING CORPORATION

Filters · Filter Discs · Sheets · Mixers · Agitators

109 ROSE STREET

MILLDALE, CONNECTICUT



OUR NEWLY ENLARGED FACTORY AND FOUNDRY

AMONG OUR FRIENDS

Dr. Eric C. Kunz, president of Givaudan - Delawanna, Inc., New York, N. Y., has left on a three to four weeks trip to Europe, where he will visit the Givaudan organization in France and Switzerland. Dr. Kunz will study the essential oil and flower oil raw material situation in Europe, will examine the needs of the Europeans for American synthetics, and will lay plans with his European associates for the expansion of the Givaudan-Delawanna interests in this country.



Dr. Eric C. Kunz

Arch Payne has been placed in charge of the Dallas office of Florasynth Laboratories, Inc., New York, N. Y. His office address is Suite 304, 1708½ Commerce St. Mr. Payne, has been associated with processing, oil and chemical organizations since 1919.

J. Hilary Herchelroth, president of Lancry de Paris, Inc., whose New York Laboratories and warehouse are located at 369 Third Ave., left Sept. 6 for France, for a tour of the main plant of the company. He will complete arrangements for more extensive operations at the Lancry plant at Grasse in order to concentrate on wider distribution of Lancry perfumes in the United States. An extensive advertising campaign is being readied in this country for the perfumes: "Guess," "Baachanale," "Nous Deux," and "Tango." Mr. Herchelroth is a native of Lancaster Pa., and a graduate of the Franklin and Marshall College. He is a widely



J. H. Herchelroth

known chemist and perfumer, and is also recognized for his work in counteracting unpleasant fumes and odors.

Northam Warren, Jr., has been elected vice-president and general manager of the Northam Warren Corp., Stamford, Conn., succeeding P. W. Marshburn, who has resigned. The new general manager, prior to his graduation from Princeton in 1937, served at various times in nearly all departments of the business, and after his college career worked in a number of the company's foreign factories, including Canada, England, France, Germany, Australia and New Zealand.



Northam Warren, Jr.



John D. Yoemans

John D. Yoemans, who has been with the corporation since 1930, and in recent years has been comptroller and assistant secretary and assistant treasurer, will continue with these duties and in addition has been elected a vice-president and director of the corporation and an officer in various subsidiaries.

John H. Beach, of Seeley & Co., New York, N. Y., while boarding his yacht, August 17, at the Southold Yacht Club, of which he is commodore, dislocated his sacroiliac joint and has since been under the care of a physician. He was returning from the Shelter Island Yacht Club regatta when the accident happened. With his usual energy Mr. Beach returned to work promptly, despite the inconvenience of navigating with a heavy cane. He plans to make his scheduled talk on flavors and answer questions at the annual meeting of

the National Bakers' Supply Association in Los Angeles, October 25. Mr. Beach is a former president of the Flavoring Extract Manufacturers Association and has been active in its affairs for many years.

Frank G. Stone has joined Henri Robert, Inc., New York, N. Y., as sales representative in the metropolitan area, where he is well known for his previous association in the trade. Following his discharge from the Navy where he was a flight deck officer on a carrier, Mr. Stone was associated as a sales representative with Schimmel & Co. He is an alumnus of Colgate University from which he took the degree of A. B. in 1941. He is a member of the Sigma Nu fraternity. While in college he majored in French and played varsity football and baseball. He is a member of the Colgate Club of New York and is also an active member of the Naval Reserve at Floyd Bennett Field.



Frank G. Stone

Robert Breckenridge has been appointed sales promotion manager of Prince Matchabelli, Inc., New York, N. Y. Mr. Breckenridge was formerly director of merchandising at Revlon Products Corp. He served as a major during the war in charge of the Camouflage Division of the War Department, and later overseas on General Eisenhower's invasion staff.

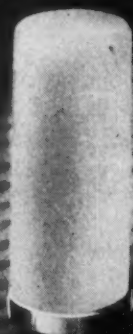


Robert Breckenridge

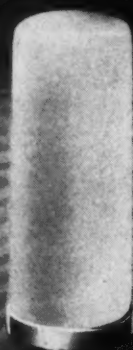
Frank L. Graham, Robert Arcularius, Harry Smith and Aaron R. Chisholm were elected life members of the Foragers at the last meeting of the Board of Governors of the association in New York, according to an announcement by Walter Conklin. All have been members and staunch supporters of the association for years.

Bright, polished, gleaming BRASS

SWIVEL LIPSTICK CONTAINERS



No. 500
.4375 cup



No. 550
.472 cup



No. 575
.500 cup

"Fashioned Like Jewels"

SPECIAL FREE-WHEELING CONSTRUCTION

{ With Plastic Caps For Lighter Weight and Flexibility
of Design, Or With Brass Caps to Your Specifications }

DeLuxe bright polished brass lacquer finish

PHONE, WIRE OR WRITE FOR SAMPLES

BRODER INDUSTRIES

INCORPORATED

161-167 WEST 64TH STREET, NEW YORK 23, N. Y.

TRafalgar 7-0092

Frederick J. Lueders, president of George Lueders & Co., New York, N. Y., was inducted as the 38th member of the company's Twenty-five year organization, August 29. Edward V. Killeen presided at the ceremony in the company's offices, which included the presentation of the 25-year service pin, a watch from the company, a silver vase from the directors, engraved with the individual signatures of each and a set of traveling bags from the employees. In presenting the pin to Mr. Lueders, Mr. Killeen emphasized the fact that the particular pin was the one which the late George Lueders, founder of the company, received on the occasion of his 25th anniversary. A luncheon celebration was held at the Drug & Chemical Club afterwards where the affection and esteem in which Mr. Lueders is held was manifested by tributes from his associates.



F. J. Lueders

Robert A. Kramer, sales manager of Evans Chemetics, Inc., New York, N. Y., who was critically injured by being struck by an automobile at 40th St. and Park Ave., New York City, on August 14 is now back at his office. Mr. Kramer was walking across the street when struck and suffered a compound fracture of the sacrum bone, the collar bone and a leg injury. Two operations were necessary at the Doctors' Hospital where he was confined for almost three weeks. Following his discharge from the hospital he moved into the Chemists' Club where he is living temporarily until his physicians feel that it is safe for him to resume commuting to his home on Long Island.

Neville R. Ashcroft, secretary-treasurer of Scott and Browne, Bloomfield, N. J., has been appointed chairman of the industry conference of drugs, pharmaceuticals and cosmetics controllers which will be a part of the forthcoming fifteenth annual meeting of the Controllers Institute of America, held Sept. 15-18, in New York, N. Y.

E. G. Higginbotham has been made general manager of Lydia O'Leary, Inc., New York, N. Y. He



E. G. Higginbotham

will organize and head new advertising and sales promotion plans as well as supervise general selling activity. Before coming with Lydia O'Leary, Mr. Higginbotham was associated with Primrose House, Inc.,

in the capacity of vice-president and sales agent.

William B. Clymer and Robert A. Gates have been made regional sales directors by the Campana Sales Co., Batavia, Ill. Mr. Clymer served for three years with the U. S. Navy in the South Pacific, and as an executive officer at Great Lakes. He will supervise sales in the Southwest and West Central territories. Mr. Gates was formerly associated with the Elias Shaker Co. He will supervise sales in the East Central territory.

Use NORTHWESTERN ETHYL BUTYRATE

when this ester is called for in your formulae.

For many years more than half of the Ethyl

Butyrate sold in this country has been man-

ufactured by us — proof of the fine quality

of our product.

THE LARGEST MAKERS OF BUTYRIC ETHER IN THE WORLD

The NORTHWESTERN CHEMICAL CO.

INCORPORATED 1882

WAUWATOSA, WISCONSIN

IT'S HARD TO TELL



THE DIFFERENCE...

IMITATION STRAWBERRY



NO. 21

IMITATION RASPBERRY



NO. 56

IMITATION CHERRY



NO. 105

These skilfully blended Norda flavors embody the natural taste of freshly picked fruit, yet have the added advantage of concentrated strength ideal for stretching natural flavors. Any one of the three — Imitation Strawberry, Raspberry, or Cherry — merely by being used alone can completely replace your natural flavors. Excellent for hard and soft candies, gelatin desserts, etc.

Write for working samples and full details, on your company letterhead

Norda

ESSENTIAL OIL AND CHEMICAL COMPANY, INCORPORATED

NEW YORK OFFICE: 601 WEST 26th STREET • ST. PAUL: 904 LINDEKE BUILDING, ST. PAUL 1, MINN.
CHICAGO: 325 WEST HURON STREET • LOS ANGELES: 2800 EAST 11th STREET
HAVANA, CUBA: AMARGURA 160 • CANADA: 119 ADELAIDE STREET WEST, TORONTO

Henry A. Bell, Jr., has been appointed sales promotion manager of Chen Yu, Inc., Chicago, Ill. Mr. Bell was formerly associated with Man of Manhattan, Inc.

Harold Hutchins, formerly publisher of *Cosmetic and Drug Preview*, and a long-term editor of *The American Druggist*, published the first of his *Drug and Cosmetic Newsletters*, Sept. 2. A weekly, the newsletter is Mr. Hutchins' first private venture in the publishing field. Temporary offices have been opened at 34 West 46 St., New York, N. Y. Mr. Hutchins has stated that paid-in-advance subscriptions have been received in sufficient numbers to make the project a success.

Philippe Chaleyer, president of Ph. Chaleyer, Inc., flew to France on Aug. 27. While abroad, he will visit France and Switzerland to see old friends and business acquaintances, and to ascertain new developments in the perfume and cosmetic field. He expects to be gone about one month. He plans to open an office in Paris at this time. His last visit to France was in 1938.

While Mr. Chaleyer is out of the country the New York office is under the direction of Jacques Masson, vice-president of the firm. Mr. Masson was discharged from the service in Feb. 1946 after having been in the army since 1942. He had been in the Infantry, Signal Corps and Quartermaster Corps, and finally worked on contract termination.



Philippe Chaleyer



Jacques Masson

The firm has a new factory in process of construction in Englewood, N. J. where natural products will be processed and where new aromatic synthetics which were developed during the war will be manufactured. The plant, which will consist of 25,000 square feet, will be finished before the end of the year.

Obituary

D. T. Gunning

D. T. Gunning, president of the Flavoring Extract Manufacturers' Assn. of the United States from 1926 to 1928, died Aug. 10, of a heart attack at the age of 61. He had been associated with the American Spice Mills, Inc.

Ludwig Scherk

Ludwig Scherk, president of Ludwig Scherk, Inc., with offices in Brooklyn, N. Y., London and Paris, died recently in London following an emergency appendectomy, at the age of 66.

Rocas E. Ellery

Rocas E. Ellery died recently in his home in Brooklyn, N. Y., at the age of 74. He had been office manager of the Andrew Jergens Co., Belleville, N. J., and had been with the company for forty-eight years.

Anthony Overton

Anthony Overton, president of the Overton-Hygienic Manufacturing Co., Chicago, Ill., died recently.

OIL ORRIS ROOT LIQUID ABSOLUTE ORRIS CONCRETE ORRIS OLEORESIN (*Resinoid*)

Genuine Orris Products are now in sufficiently good supply to enable perfumers to incorporate them in their compositions again.

Experience demonstrates that none of the substitutes for Orris are wholly satisfactory in giving the characteristic Orris note. It is therefore fortunate that these well known Bush specialties are now readily available.

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Finished extracts and colognes made with the above fragrances available in bulk.

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PRODUCTS
CORPORATION
215 PEARL STREET, NEW YORK
FACTORY AND LABORATORY: NEWARK, N. J.

MEMPHIS, TENN.

NEWS and EVENTS

Decontrol Established on Additional Toiletries

The following items were exempt from price control through an OPA revision of SO-127, effective Aug. 26, 1946, in the territories and possessions of the U. S.: Hair straightening combs, perfume atomizers, cosmetic cases, fitted toilet set cases, lipstick and rouge cosmetic containers, purse perfume dispensers, bottles for toiletries and cosmetics, cosmetic brushes, soap dispensers, beauty-shop furniture and equipment, permanent wave machines and permanent wave kits.

Standards Issued for Cetyl Alcohol and Triethanolamine

The Scientific Advisory Committee of the Toilet Goods Association has issued standards for cetyl alcohol and triethanolamine. It recommends that users of these compounds use these standards as minimum specifications. Copies may be obtained from H. D. Goulden, Toilet Goods Assn., Inc., 9 Rockefeller Plaza, New York, N. Y.

American Society of European Chemists Resumes Lectures

The American Society of European Chemists will resume its regular monthly lectures during the season 1946-47. These lectures will be held at the Master Institute, 310 Riverside Dr., New York, N. Y., on the first Thursday of each month at 8:30 p.m.

The following lecturers and subjects are scheduled: Oct. 3, Maison G. deNavarre, "Preservatives"; Nov. 7, Dr. Aaron Addelston, "Amino Acids"; Dec. 5, Dr. Morris B. Jacobs, "Some Aspects of Compounding Flavors."

In addition, lectures will be held by the following: Dr. Victor Fourman, "The Chemistry of the Ionoines"; and Dr. Werner Kuhn, Head of the Department of Physical Chemistry, Basle University; Dr. Paul Karrer, Professor of Organic Chem-

istry, University of Zurich; and Dr. P. Scherrer, Professor of Physics, Federal Institute of Technology, Zurich. The subjects of the last three talks has not been announced.

George Lueders & Co. Welcomes 25 War Veterans at Anniversary Banquet

All of the employees of George Lueders & Co., New York, N. Y., including representatives from San Francisco, Chicago, Milwaukee, Philadelphia, St. Louis, Mexico City, Toronto and Montreal, gathered at the Hotel Astor, New York City, on the evening of September 13 to honor 25 members of the organization who returned after service in the armed forces, to celebrate belatedly the sixtieth anniversary of the company, which was founded in 1885, and to tender a testimonial dinner to President Frederick J. Lueders, who recently completed 25 years of service with the company. Three members of the company who served in the armed forces, died in combat.

The affair was a colorful occasion, marked by a banquet and a dance. The good fellowship that exists throughout the organization made the occasion one to be remembered.

Columbia's Perfume and Cosmetic Courses Under Sagarin and Carter

The College of Pharmacy of Columbia University, New York, N. Y., has announced that the course in perfumery and perfume materials, starting this Fall, will be taught by Edward Sagarin, author of "The Science and Art of Perfumery," and the course in the manufacture of cosmetics and toilet preparations will be given by Professor Horace M. Carter.

Both of these courses were formerly taught by Dr. Curt Wimmer, whose resignation was announced in July of this year.

The perfumery course opens Sept. 30, and the cosmetics course opens Oct. 1. Registration for either course takes place at the college, 113 West 68 St., New York, N. Y., Sept. 19-25.

Maine Legislature Passes Cosmetics Tax

A special session of the Legislature of Maine has passed a tax of 5 per cent on cosmetics and toilet articles. This is in addition to the 20 per cent Federal excise tax.

The citizens of the state will vote this month upon an amendment of the state constitution which will permit issuing \$16,000,000 in state bonds. If the amendment is voted, the tax will go into effect November 1. The purpose of the move is to finance a veterans benefit project.

Fritzsche Brothers Inc. Celebrates 75 Years of Useful Service

The development of Fritzsche Brothers, Inc., New York, N. Y., from its foundation as a small branch of a foreign concern to its present commanding position as an American enterprise doing business all over the world and the story of the men who have guided and who are now directing its destinies are discussed in an interesting and chatty way in a brochure prepared for its seventy-fifth anniversary now being celebrated.

The firm was founded August 28, 1871, under the name of Fritzsche, Schimmel & Co. with offices at 62 Cedar St., New York City. There were then in the country 33 concerns manufacturing and selling perfumes and fancy soaps and the amount of their annual business was only \$124,317. Also there were in New York City 11 importers of essential oils.

The little company thrived and was forced several times to move into larger quarters. In 1877 it changed its name to Fritzsche Brothers and by 1881 was operating a factory in Hoboken, N. J. This factory was discontinued in 1892 and a new one was erected in Garfield, N. J. Dr. Frederick B. Power was director of this factory assisted by Dr. Clemens Kleber who became director in 1896. Both of these men are well known for their contributions to the chemistry of essential oils.



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IF a friend recommends it . . . or she's read about it . . . or it looks inviting . . . Madam Consumer is apt to try anything . . . or *any product* once! But her decision to buy a product again and *again* is often based on its superlative taste or scent-appeal!

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alchemy that endows countless products with the magic of individualized flavor or odor personality.

As one of the world's great suppliers of Essential Oils, Flavor and Perfuming Materials, MAGNUS, MABEE & REYNARD, INC., can be of important service to you.

Let us show you how distinctive odor or flavor can add sales-appeal to *your* product, old or new. The facilities of our laboratories and more than 50 years of specialized experience are available to you without obligation.

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NATIONAL CHEMICAL EXPOSITION

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through QUALITY ESSENTIAL OILS,
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CONCENTRATED FLAVORS

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H. P. Wesemann



E. Guenther



J. A. Huisking



A. J. Nicolaus



R. R. Redanz



D. A. Neary

Frederick H. Leonhardt joined the company as director of its technical activities April 15, 1894, and in May, 1895, F. E. Watermeyer joined the organization as head of the sales department.

The factory in Garfield was sold in 1900 and Dr. Kleber left the employ of Fritzsche Brothers. In 1906 however he built his own laboratory. Here he continued to manufacture various products exclusively for the firm until his death in 1937 when the company purchased his laboratory, improved and enlarged it.

The firm moved in 1907 to 82-84 Beekman St., New York City, where it remained until 1935 when a disastrous fire ruined the premises and compelled a move to larger and more centrally located quarters in the Port of Authority Commerce building.

F. E. Watermeyer became head of the concern in 1913 and it was incorporated in 1919 with him as its first president.

The first World War severed connections with foreign sources and emphasized problems of supply and quality. It became one of the major preoccupations of the company to solve some of these problems. Dr. Ernest Guenther was engaged in 1924 and shortly afterwards began a series of field surveys and investigations which have covered practically every essential oil producing center throughout the world and have lasted up to the present. These surveys have resulted in outstanding contributions



F. H. Leonhardt



J. H. Montgomery

to the more exact knowledge of essential oils and their efficient production. The result of these studies have been published in a series of over 100 monographs. This work has been supplemented by colored moving picture lectures before various scientific bodies. Government agencies have relied heavily on Dr. Guenther's monographs in their efforts to establish new sources of supply in the western hemisphere.

In 1928 the company acquired Les Parfumeries de Seillans in the province of Var, France. On the plantations around this factory grow jasmine, tuberose, lavender, etc.

F. E. Watermeyer died in 1934 and was succeeded in the presidency by Frederick H. Leonhardt, who, with a thorough knowledge of the executive branch of the business added a solid technical background. The combination gave him unusual insight into those problems of standards which the company was attempting to solve.

The growth of the firm has necessitated the establishment of a number of branches including Fritzsche Brothers of Canada which was organized in 1923 and Productos Fritzsche Brothers S. A. established in Mexico City in 1937. Offices and stocks are maintained in Chicago, Boston, St. Louis and Los Angeles; and branch offices in Philadelphia, Atlanta, San Francisco, Cleveland and Cincinnati.

A cordial employer-employee relationship—the basis of internal harmony and efficiency on which successful service depends—has long been a tradition with the company. The firm was among the first to adopt group insurance for its employees. In 1943 a liberal pension plan without cost to employees was adopted and the group insurance protection was extended to cover sickness and accidents and to include dependents of employees.

In addition to the president, F. H. Leonhardt, the other officers are: John H. Montgomery, first vice president and treasurer; Hans P. Weseman, second vice president and secretary; Dr. Ernest Guenther, third vice president and chief chemist, and Joseph A. Huisking, fourth vice president. Dr. Arthur J. Nicolaus is director of the Clifton chemical laboratories; Ralph Redanz is assistant treasurer; Daniel A. Neary is assistant secretary and Gustave A. Wohlfort is comptroller. Miss Mary G. Neary is secretary to the president.



G. A. Wohlfort



B. F. Zimmer, Jr.



E. H. Hamann



Mary G. Neary



F. H. Leonhardt



R. W. Wilmer

The F. Ritter Label and Dr. Alexander Katz

Dr. Alexander Katz & Company announces that products formerly manufactured by the Florasynth Laboratories under F. Ritter & Company's label as original Ritter Bouquets are continued to be manufactured exclusively by Dr. Alexander Katz & Company at the Los Angeles plant.

These Flower Oils and Flavorings have been well known since 1876.

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ROSE
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MINNEAPOLIS

SEATTLE

Beautiful Souvenir Book Marks Firmenich & Cie 50th Anniversary

In commemoration of its fiftieth anniversary which was celebrated Nov. 1, 1945, Firmenich & Cie., Geneva, Switzerland, successors of Chuit Naef & Cie., manufacturers of synthetic aromatic chemicals and perfume specialties, has just issued an attractive souvenir volume of 142 pages, 8½x11½ in., substantially bound in white cloth covers and illustrated with over 75 photographs and wash drawings and with numerous appropriate thumb nail sketches. The volume is neatly printed in two editions, one in French and the other in English.

Full page photographs of each of the founders of the company the late Philippe Chuit and Martin Naef and also one of Frederic Firmenich, commercial director from 1900 to 1943, follow a gracious preface by Eugene Nussbaum, director of the Chamber of Commerce of Geneva. Then come excellent full page photographs of the present officers: Hugo and Andre Firmenich, commercial directors and

Roger and Georges Firmenich, technical directors. A two-page wash drawing gives an excellent bird's eye view of the works after which illuminating technical data is given in three articles by chemists associated with the company: "The Contribution of the Chemistry of Perfumes to the Development of



R. C. Watson



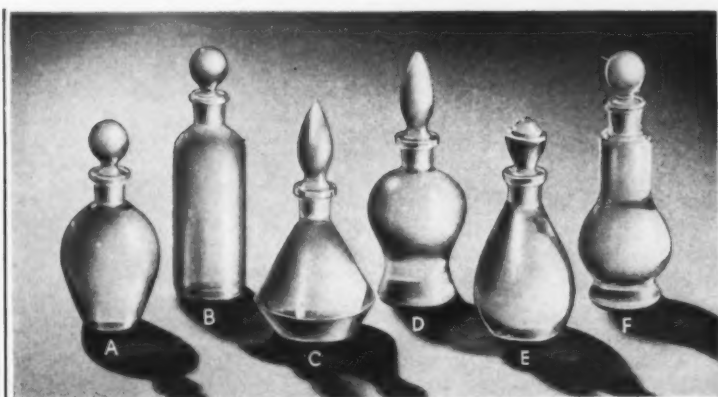
Roger Firmenich

Organic Chemistry" by Dr. Leopold Ruzicka; "From the Synthesis of Vanilline to that of Alpha-Civetone" by Roger Firmenich; and "Chemical Research in 'Connection with Our Manufactures of Synthetic Perfumes and Flavors" by Dr. Max Stoll.

The history of the commercial or-

ganization of the firm by Auguste Stucki, Marius Rey and Willy Deiss of the executive staff is followed by a complete list, arranged by continents, of the branches, agencies and representatives of the company throughout the world. "Our Staff" forms the subject of an interesting chapter by Georges Firmenich which is followed by a series of 40 photographs covering the early history of the company, the works as they used to be and as they are today. All told, the volume gives a conspicuously good picture of the history of one of the outstanding firms in the industry and the important part it has played in the development of the industries it serves.

As is well known the traditions of the concern are ably carried out by Rupert C. Watson, the New York partner of the firm, who established the New York branch, Firmenich & Co., in 1936. It is interesting to note that Roger Firmenich, technical director of the parent company, is now in the United States having arrived September 6 on his initial visit to this country.



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B ... Plain Round
C ... K-105

D ... K-101
E ... Pear
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He who knows how to produce BEAUTY will have people seeking his door. The Diaphanous thing of moonshine we call PERFUME has the Power to stir the Soul. The Caravans that trailed into Damascus and Samarcand live in song and story, not because they carried woolen threads woven together — but because they brought BEAUTY.

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Sweetest the strain — when in the Song
the singer has been lost

*We humbly submit this FRAGRANCE
for the delight and inspiration of the
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SPARKILL, N. Y.

Be not like the stream that brawls
Loud with shallow waterfalls,
But in quiet self control
Link together Soul with Soul
Longfellow

When from the censor clouds of
fragrance roll
And swelling organs lift the rising
soul
One thought of thee puts all the
pomp to flight
Priests, tapers, temples swim
before my sight.
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greater profits

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when you buy in **BULK**

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perfume and cosmetic industry with
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Jacob Manheimer Honored for His 70 Years in Business

Jacob Manheimer, who has been associated with the essential oil and vanilla bean business for 70 consecutive years, was the honored guest of his associates in the trade at a testimonial banquet in the Savoy Plaza hotel, New York, N. Y., on the evening of September 11. The affair was a complete surprise to Mr. Manheimer; and in conceiving and arranging the details of the affair Gerard J. Danco again demonstrated his executive ability, good taste and skill.



Jacob Manheimer

There were 125 at the banquet, featured with selected wines in harmony with each delicate dish. The banquet table was decorated with an abundance of cut flowers. Prior to the banquet a cocktail party was held. Only members of the essential oil and vanilla bean business and

6 invited guests were present and there were no speeches.

At the conclusion of the banquet, Gerard Danco, who presided, rose and informed Mr. Manheimer that it was felt fitting by the group to honor him on his seventieth anniversary by paying him in the same kind of money and in the same amount that he received for his first week's pay when he began to work for Leo Bernard & Co., an essential oil house, back in 1876. Accordingly, he presented Mr. Manheimer with an envelope containing two silver dollars.

Amid much good natured banter and applause the names of all present were read. Then Mr. Danco directed his remarks to the guest of honor and told him that his colleagues felt that he should have something to remember the occasion by and the contents of the parcel he was going to hand him could not be traded against a new one and fifty cents. He then presented Mr. Manheimer, on behalf of the group, a 21-jeweled Hamilton gold watch, from Tiffany's, together with a gold watch chain and a gold penknife and key holder. Neatly engraved on the watch were

his initials and the dates, 1876-1946. In the jeweler's case the following was engraved on a card: "To 'Uncle Jake' Manheimer, with the deep affection and esteem of his colleagues in the essential oil and vanilla bean industry. September 11, 1946." The penknife and key holder were also engraved with his initials.

Mr. Manheimer served with Leo Bernard & Co. from 1876 until 1898, when he bought out the firm. Since then he has conducted the business under his own name. He is still the active head of the firm and is assisted in the management by his nephews, Paul and Edwin. Each day he comes to business from his home in Rockaway Park, L. I., and works from 8.15 a.m. until 5 p.m., and when he travels he goes by airplane. He is a member of the Vanilla Bean Association, the Essential Oil Dealers Association of the U. S. A., the Toilet Goods Association and the Flavoring Extract Manufacturers Association. Despite his 82 years—he was born August 16, 1864—he is one of the most active men in the industry and bears the title of "Dean of the Industry" with distinction.

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Fritzsche Award for Improved Methods of Essential Oil Analysis

In commemoration of its diamond jubilee Fritzsche Brothers, Inc., New York, N. Y., has announced the establishment of an annual award of \$500 in cash and a gold medal to be presented to the person or persons making the most important contribution each year toward new or improved methods of analysis in the testing or examination of essential oils or aromatic chemicals.

The gold medal to be presented to each recipient of the Fritzsche Award was designed by Rene Chambellan, one of America's foremost sculptors. As his central motif, Mr. Chambellan has used a representation of Demeter, Greek Goddess of Agriculture, aided by sun, sea and soil—symbolic of the source materials upon which our industry is founded. To the right in lesser relief is the figure of a chemist with laboratory apparatus—suggestive of the contribution of laboratory research and analysis toward improvement of our products; on the left is a commercial still—representative of the means by which Nature's raw materials are converted to our



Obverse Side

Reverse Side

needs. On the obverse side of the medal appear the words: "The Fritzsche Award" and the year of its award. On the reverse side is the inscription: "Awarded to _____ for outstanding achievement in the field of essential oil analysis." This is surrounded by a decorative border of laurel and the seal of the firm.

To the end that the presentation of the award may be as impartial as possible, no member of the sponsoring firm will be permitted to receive it; nor will any member serve as a judge.

The judging committee will be composed of outstanding figures in trade and scientific associations.

Courtley Taken Over by Richard Hudnut

Courtley, Inc., Hollywood, Calif., one of the more firmly entrenched men's toiletries firms, has been purchased by Hudnut Sales Co., Inc., New York, N. Y. William Nassour, founder and president of the firm, is to continue as general manager in charge of sales.



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ESSENTIAL OILS

Almond Bit, per lb.	3.50@ 4.00	Citronella, Ceylon	2.00 Nom'l	Opopanax	30.00@ 38.00
FFPA	4.75@ 5.10	Java type	5.50@ 6.00	Orange, bitter	3.50@ 3.95
Sweet True	1.25@ 1.50	Cloves, Zanzibar	1.60@ 1.65	Brazilian	1.60@ 1.75
Apricot Kernel .....	.55 Nom'l	Coriander	20.00@ 25.00	Calif., exp.	2.00 Nom'l
Amber, rectified	2.25 Nom'l	Imitation	12.00@ 14.00	Orris Root, abs. (oz.)	135.00@
Angelica Root	125.00@ 150.00	Croton	4.75@ 5.00	Artificial	36.00@ 40.00
Anise, U. S. P.	1.80@ 2.00	Cumin	9.00@ 11.00	Pennyroyal, Amer.	3.35@ 3.75
Imitation	1.75@ 2.10	Dillseed	7.00 Nom'l	European	3.40@ 3.85
Aspic (spike) Span.	2.85@ 3.25	Erigeron	2.25@ 5.00	Peppermint, natural	7.15@ 7.40
Avocado	1.35@ 1.40	Eucalyptus	1.09@ 1.15	Redistilled	7.65@ 7.70
Bay	1.35@ 1.60	Fennel, Sweet	4.00@ 4.50	Petitgrain	4.25@ 4.60
Bergamot	5.00@ 5.75	Geranium, Rose, Algerian ..	17.50@ 19.00	Pimento Berry	7.00@ 7.60
Artificial	3.35@ 6.00	Bourbon	17.00@ 20.00	Pinus Sylvestris	4.25@ 5.00
Birch, sweet	2.50@ 5.00	Turkish	7.50@ 8.00	Pumillonia	4.25@ 4.75
Birchtar, crude	3.50 Nom'l	Ginger	11.00@ 12.50	Rose, Bulgaria (oz.)	36.50@ 45.00
Birchtar, rectified	5.00 Nom'l	Guaiac (Wood)	2.75@ 3.00	Synthetic, lb.	45.00@ 55.00
Bois de Rose	5.75@ 6.00	Hemlock	2.65@ 3.34	Rosemary, Spanish	1.60@ 1.75
Cade, U. S. P. ....	.90@ 1.20	Substitute .....	.55@ .60	Sage	2.65@ 3.25
Cajuput	3.00 Nom'l	Juniper Berry	11.50@ 12.00	Sage, Clary	25.00@ 30.00
Calamus	22.00@ 25.00	Juniper Wood, imitation ..	1.00@ 1.25	Sandalwood, N. F.	9.52@
Camphor "white" dom. ....	.25@ .30	Laurel	5.00 Nom'l	Sassafras, natural	2.00@ 2.15
Cananga, native	9.75@ 10.50	Lavandin	5.00@ 5.75	Ocotea Cymbarum .....	.90@ .96
Rectified	11.75@ 12.15	Lavender, French	13.00@ 15.00	Snake root	12.00 Nom'l
Caraway	7.00@ 7.50	Lemon, Calif.	3.25@	Spearmint	5.50@
Cardamon	19.00@ 22.00	Italian	3.25@ 5.10	Thyme, red	3.25@ 3.40
Cassia, rectified, U. S. P.	4.65@ 5.25	Lemongrass	3.85@ 4.10	White	3.55@ 3.80
Imitation	3.75@	Limes, distilled	6.00@ 7.00	Valarian	40.00 Nom'l
Cedar leaf	1.10@ 1.25	Expressed	13.50@ 15.00	Vetivert, Java	50.00 Nom'l
U. S. P.	2.50@ 3.10	Linaloe	5.75@ 6.00	Bourbon	35.00@ 40.00
Cedar wood	1.50@ 1.55	Lovage	95.00 Nom'l	Wintergreen	4.00@ 8.25
Celery	17.50@ 18.50	Marjoram	7.25@ 7.50	Wormseed	5.00@ 5.35
Chamomile Roman	250.00@	Neroli, Bigarade P.	300.00@ 375.00	Ylang Ylang, Manila	38.00 Nom'l
Cinnamon bark oil	32.50@ 35.00	Petale, extra	265.00@ 300.00	Bourbon	18.00@ 20.00
		Olibanum	4.75@ 5.10		

(Continued on page 103)

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Your attention is also directed to four other exquisite aromatic products . . .

CAMELIA
FLORIDA #20
ALPINE BOUQUET
MIMOSA BOUQUET

• **Wire, 'phone or write . . .**

Try us for quality, price, delivery, service. Let us work with you on your aromatic problems.

And please note that we are in position to solve ANY perfume problem. In addition to being direct importers, we also compound various standard and special items.

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★ SHAMPOOS:

Isopropyl Alcohol aids in cleaning hair and scalp thoroughly and in leaving hair soft and lustrous.

★ HAIR AND SCALP PREPARATIONS:

Isopropyl Alcohol as a vehicle for hair and scalp preparations aids the cleansing and antiseptic value of the tonics.

STERILIZING SOLUTIONS:

40% Isopropyl Alcohol will kill dried Bacillus Coli in 1/4 minute. 50% Isopropyl Alcohol is equivalent to 70% ethyl alcohol for killing Bacillus streptococcus and staphylococcus.

★ BODY RUBS:

Isopropyl Alcohol evaporates slowly, thereby prolonging the cooling effect when used in body rubs. Isopropyl Alcohol has no denaturants.

★ FACE AND HAND LOTIONS:

Isopropyl Alcohol evaporates slowly; has little tendency to dry the skin, and aids in keeping the skin soft.

★ AFTER SHAVE LOTION:

Isopropyl Alcohol is excellent for this product because it aids the after-cooling and skin-freshening qualities of the lotion.

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(Continued from page 101)

TERPENELESS OILS

Bergamot	16.50@	20.00
Grapefruit	65.00	Nom'l
Lavender	28.00	Nom'l
Lemon	40.00@	45.00
Lime, ex.	85.00@	100.00
Distilled	60.00@	67.00
Orange sweet	82.00@	112.00
Peppermint	13.00@	13.80
Petitgrain	3.85@	4.25
Spearmint	5.00@	6.00

DERIVATIVES AND CHEMICALS

Acetaldehyde 50%	1.90@	2.75
Acetophenone	1.65@	1.80
Alcohol C 8	4.25@	
C 9	14.00	Nom'l
C 10	4.25@	
C 11	11.50	Nom'l
C 12	4.25@	
Aldehyde C 8	12.00@	18.00
C 9	27.00@	30.00
C 10	12.00@	17.00
C 11	22.00	Nom'l
C 12	23.50@	28.00
C 14 (so called)	7.50@	9.00
C 16 (so called)	7.65@	8.25
Amyl Acetate	.55@	.75
Amyl Butyrate	1.00@	1.10
Amyl Cinnamate	4.50@	5.80
Amyl Cinnamate Aldehyde	2.35@	2.80
Amyl Formate	1.00@	1.50
Amyl Phenyl Acetate	3.65@	4.00
Amyl Salicylate	.80@	1.00
Amyl Valerate	2.10@	2.75
Anethol	2.65@	3.25
Anisic Aldehyde	3.10@	3.75
Benzoprenone	1.15@	1.30
Benzyl Acetate	.55@	.65

Benzyl Alcohol	.75@	1.00
Benzyl Benzoate	1.05@	1.20
Benzyl Butyrate	2.10@	2.25
Benzyl Cinnamate	6.75@	7.00
Benzyl Formate	2.50@	3.75
Benzyl-Iso-eugenol	9.50	Nom'l
Benzylidenacetone	2.10@	3.05
Borneol	1.80	Nom'l
Bornyl Acetate	2.25	Nom'l
Bromstyrol	6.00@	6.50
Butyl Acetate	.19 1/2@	.19 3/4
Cinnamic Alcohol	3.00@	3.60
Cinnamic Aldehyde	.95@	1.10
Cinnamyl Acetate	8.75@	10.00
Cinnamyl Butyrate	12.00@	14.00
Cinnamyl Formate	10.00@	13.00
Citral, C. P.	7.25@	7.50
Citronellol	6.50	Nom'l
Citronellyl Acetate	8.60@	9.20
Coumarin	3.00@	3.50
Cuminic Aldehyde	8.00@	11.25
Diethylphthalate	.24@	.30
Dimethyl Anthranilate	4.55@	5.00
Ethyl Acetate	.25@	.35
Ethyl Anthranilate	5.50@	7.00
Ethyl Benzoate	.75@	1.00
Ethyl Butyrate	.75@	.90
Ethyl Cinnamate	3.60@	3.80
Ethyl Formate	.65@	.80
Ethyl Propionate	.80	Nom'l
Ethyl Salicylate	.90@	1.00
Ethyl Vanillin	5.25@	6.00
Eucalyptol	2.65@	2.85
Eugenol	2.85@	3.35
Geraniol, dom.	6.25	Nom'l
Geranyl Acetate	3.60	Nom'l
Geranyl Butyrate	8.50	Nom'l
Geranyl Formate	13.40	Nom'l
Heliotropin, dom.	3.75@	4.00
Hydrotropic Aldehyde	7.60@	8.10
Hydroxycitronellal	8.50	Nom'l

Indol, C. P.	20.00@	23.00
Iso-borneol	1.10	Nom'l
Iso-butyl Acetate	1.25@	2.00
Iso-butyl Benzoate	1.50@	2.60
Iso-butyl Salicylate	2.70@	3.00
Iso-eugenol	3.85@	4.00
Iso-safrol	3.00	Nom'l
Linalool	8.00	Nom'l
Linalyl Acetate 90%	8.50	Nom'l
Linalyl Anthranilate	15.00@	
Linalyl Benzoate	10.50@	
Linalyl Formate	10.00@	12.00
Menthol, Brazilian	8.00@	8.75
Methyl Acetophenone	1.80	Nom'l
Methyl Anthranilate	2.25@	2.40
Methyl Cellulose, f.o.b., ship-		
ping point	.60	Nom'l
Methyl Cinnamate	3.25@	3.80
Methyl Eugenol	3.50@	6.75
Methyl Heptenone	3.50	Nom'l
Methyl Heptene Carbonate	45.00@	60.00
Methyl Iso-eugenol	5.85@	10.00
Methyl Octene Carbonate	24.00@	30.00
Methyl Paracresol	2.50	Nom'l
Methyl Phenylacetate	3.80@	4.00
Methyl Salicylate	.37@	.38
Musk Ambrette	4.25	Nom'l
Ketone	4.35	Nom'l
Xylene	2.00	Nom'l
Neroline (ethyl ether)	2.00@	3.15
Paracresol Acetate	2.55@	3.00
Paracresol Methyl Ether	2.60@	2.85
Paracresol Phenyl-acetate	6.00@	7.25
Phenylacetaldehyde 50%	3.00	Nom'l
100%	5.00	Nom'l
Phenylacetic Acid	2.10@	3.00
Phenylethyl Acetate	3.00	Nom'l
Phenylethyl Alcohol	2.80@	3.00
Phenylethyl Anthranilate	16.00@	

(Continued on page 105)

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Ozokerite

Ceresine

Micro Crystalline Petroleum Waxes

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(Continued from page 103)

Phenylethyl Butyrate	3.65@	4.00
Phenylethyl Propionate	3.45@	3.90
Phenyl Valerianate	16.00@	17.50
Phenylpropyl Acetate	10.00	Nom'l
Santalyl Acetate	20.00@	22.50
Scatol C. P. (oz.)	5.35@	6.00
Styrollyl Acetate	2.50@	3.00
Vanillin (clove oil)	4.50@	4.65
(guaiacol)	2.35	Nom'l
Lignin	2.35	Nom'l
Vetivert Acetate	25.00	Nom'l
Violet Ketone Alpha	18.00	Nom'l
Beta	15.00	Nom'l
Methyl	6.50	Nom'l
Yara Yara (methyl ester)	2.00@	3.10

BEANS

Tonka Beans Surinam	.85@	.95
Angostura	1.60@	1.85
Vanilla Beans		
Mexican, whole	11.00@	
Mexican, cut	10.00@	
Bourbon	7.75@	8.50
Tahiti	3.35@	3.75

SUNDRIES AND DRUGS


Acetone	.07@	.07 1/2
Almond meal	.25@	.35
Ambergris, ounce	12.00@	16.00
Balsam, Copaiba	1.45@	1.60
Peru	1.20@	1.30
Beeswax bleached, pure		
U. S. P.	.68@	.70
Yellow, refined	.60@	.62
Bismuth, subnitrate	1.20@	1.22
Borax, crystals, carlot ton	55.50@	58.00
Boric Acid, U. S. P., cwt.	6.95@	7.55
Calamine	.18@	.20

Calcium, phosphate	.08@	.08 3/4
Phosphate, tri-basic	.09@	.10
Camphor, domestic	.69@	.84
Castoreum, Canada	7.80@	10.00
Cetyl, Alcohol	1.75@	1.80
Chalk, precip.	.03 1/2@	.06 1/2
Cherry Laurel Water, jug, gal.	2.60@	3.10
Citric Acid	.21@	.24
Civet, ounce	18.00@	25.00
Clay, colloidal	.07@	.15
Cocoa, Butter, lump	.25 1/2@	.27
Cyclohexanol (Hexalin)	.30@	.50
Fuller's Earth, ton	15.00@	33.00
Glycerin, C. P.	.18 1/4	Nom'l
Gum Arabic, white	.29@	.32
Amber	.15@	.16 1/4
Powdered, U.S.P.	.19 1/2@	.21
Gum Benzoin, Siam	5.00	Nom'l
Sumatra	1.60	Nom'l
Gum Galbanum	1.10@	1.35
Gum Myrrh	.50@	.55
Henna, pwd.	.35@	.40
Kaolin	.05@	.07
Labdanum	5.00@	7.00
Lanolin, hydrous	.25@	.26
Anhydrous	.28@	.29
Magnesium, carbonate	.09@	.10 3/4
Stearate	.24@	.27
Musk, ounce	45.00@	50.00
Olibanum, tears	.26@	.35
Siftings	.12 1/2@	.14
Orange Flower Water, gal.	1.75@	2.25
Orris Root, Italian	.60@	.68
Paraffin	.06@	.09
Peroxide	1.10@	1.75
Petrolatum, white	.06 1/4@	.08 1/2
Quince Seed	1.50@	1.75
Rice Starch	.10	Nom'l
Rose Leaves, red	3.45@	4.00
Rose Water, gal.	6.50@	8.00

Rosin, M. per cwt.	7.55@	
Salicylic Acid	.35@	.40
Saponin	1.75@	2.10
Silicate, 40°, drums, works,		
100 pounds	.80@	1.20
Soap, neutral, white	.20@	.25
Sodium Carb.		
58% light, 100 pounds	1.53@	2.35
Hydroxide, 76% solid, 100		
pounds	2.60@	3.75
Spermaceti	.29@	.31
Stearate Zinc	.33@	.34 1/2
Styrax	1.20@	1.35
Tartaric Acid	.62 1/2@	.63 1/2
Tragacanth, No. 1	5.00@	5.15
Triethanolamine	.19 1/2@	.20 1/2
Violet Flowers	2.00	Nom'l
Zinc Oxide, U. S. P. bbls.	.40 1/2	Nom'l

OILS AND FATS

Castor No. 1, tanks	.143@	
Cocanut, Manila Grade,		
c.i.f., tanks	.0835@	
Corn, crude, Midwest, mill,		
tanks	.12 3/4@	
Corn Oil, distilled, drums	.16 1/4@	.16 1/2
Cotton, crude, Southeast,		
tanks	.12 3/4	Nom'l
Grease, white	.13 1/8	Nom'l
Lard	.15475@	
Lard Oil, common, No. 1		
bbls.	.17 3/4	Nom'l
Palm Niger, drums	.0865	
Peanut, blchd., tanks	.1501@	
Red Oil, distilled, drums	.13 1/4	Nom'l
Stearic Acid		
Triple Pressed	.18 5/8	Nom'l
Double Pressed	.15 7/8	Nom'l
Tallow, acidless, barrels	.16 3/4	Nom'l
Tallow, N. Y. C., extra	.12 7/8	Nom'l
Whale oil, refined	.1232	Nom'l



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Marketing Drugs and Cosmetics

by LOUIS BADER, Ph.D.

Associate Professor of Marketing, New York University

and

SIDNEY PICKER, M.C.S.

National Merchandisers

This is the seventh installment. The eighth will appear in the October issue.

EFFECT OF COMBINATION DEALS ON THE

TRADE: The trade generally is decidedly antagonistic toward combination sales to the public of a manufacturer's product, especially when a new product is tied up with an old one. To offset the feeling against the practice, many manufacturers volunteer to make exchanges of the new product for the standard old product in the event that the new one does not sell satisfactorily. If the manufacturer has confidence in his new items, and intends to back up his new venture or product with intensive advertising and other promotional efforts, then it is to his advantage to see to it that as many dealers as possible have the product on their shelves. For this reason manufacturers are willing to offer the new item on an exchangeable basis. He runs very little risk of being compelled to take the product back later, because the mere fact that the dealer's risk is reduced to a minimum because of the exchange offer will help the manufacturer get whatever dealer cooperation is available.

Whether or not the combination offer to consumers decreases the good will the retailer has for the manufacturer will depend largely on the house policies. The manufacturer should, therefore, make sure that all questionable phrases and all objectionable factors in the sales contract are eliminated so that if the product finally has no public acceptance, the dealer's loss, if any, will be limited in amount. Thus in this kind of deal the retailer runs very little risk, yet at the same time is prepared to answer calls for new merchandise as occasion may arise. The manufacturer, of course, has the advantage of getting distribution quickly and inexpensively.

THE PURPOSE OF THE DEALS: As pointed out before, one of the main purposes of the free goods deal is to increase the sales volume by a disguised lowering of price to the dealer. Naturally, the creator of the free deal could not retain a monopoly on the idea; so it was quickly copied and used by others. And as others used the plan, the idea grew that through its use competition might be eliminated by loading dealers' shelves; and its use therefore became widespread. Finally the free goods plan became universally adopted as an introductory offer to induce large initial sales of a product, or larger repeat orders periodically, even after a product had become established. The free goods

deal actually is a quantity discount, but in view of the fact that merchandise rather than cash is given away, the manufacturer can show a large unit sale, and still retain his standard list price. This is true only if the offer is a special concession. If the free goods becomes part of the regular price or is offered permanently, then the deal is no longer a special offer by the manufacturer, but is merely a permanent reduction in price. Then the term "free deal" is a misnomer and loses the ability to increase sales by "selling up" the dealer at periodic intervals.

DEAL AS AN INTRODUCTORY OFFER: Most manufacturers, in introducing a product, use a free goods deal today as a means of increasing the size of their initial sales unit. Because of cutting down purchases, restricted credits, poor business, slow turnover, the retailer, knowing that he can buy his requirements from the manufacturer in nominal quantities and get the best price, is not inclined to buy more than a minimum sales unit of any product. The usual cry of "create the demand and then stock" means sales of 1/12 dozen on calls. The manufacturer, therefore, in order to get real display of his product through having sufficient stock in the dealer's store for him to make a decent display, and in order to sell enough to pay for the cost of soliciting orders, usually allows a discount in merchandise from 8 1/3 to 25 per cent on an original sales unit of at least one dozen of a new product and sometimes for a minimum purchase of 3 dozen. The custom, as has been stated, is to offer free goods instead of a discount on the price.

DEALERS' ATTITUDE TOWARD DEALS: The manufacturer of any drug specialty who does not offer a free goods deal at some time or other is the rare exception. As a matter of fact, trade customs and practice have so spoiled the retailers that the average druggist now expects free goods on everything he buys at some time or other. He thinks that they are part of the sales policy of the industry and takes them as a matter of course. He expects them because of the supposed extra profit and, as one wholesaler states, does not realize that they are really not an extra profit when he includes the loss as represented by the slowing down of turnover, caused by the size of the required purchase to get free goods.

An executive of a large cooperative drug buying corporation stated the case against "free" goods deals in the 1930's and the belief about them is not much different in the 1940's:²

Manufacturers have told me that the free deal is the only means they know of whereby they can enable their specialty salesmen to pay their way. This means that the manufacturers are willing to employ specialty men at the expense of the retailer, because the dealer actually loses money on at least nine free deals out of ten.

They also offer the deals on the theory that if they force orders on the trade the dealer will push their goods. There might be something in this theory if the manufacturer had a monopoly on the free deal system. But after a retailer loads up on some free deal he thinks he can sell profitably, he is almost invariably offered another deal on a competitive product for which he receives an occasional call, and he puts it in, too. This experience is repeated again and again in the buying of most of the goods the druggist handles, and the result is chaos for a good many retailers.

In marking his goods the druggist is frequently led by free deals into confusion and costly mistakes. He is sold, let us say, one dozen of an item with a quarter-dozen free. When he marks the goods, to ascertain his cost, he figures off the discount represented by the free goods. He marks this cost on the goods, and then, in the course of time, when he reorders the item from his wholesaler, he compares the regular price with his free deal cost, and howls that he is being robbed by the wholesaler. Or he forgets the price paid and marks the new goods with the old cost. In this and other ways, free deals cause a lot of trouble and bad feeling, besides loss of profits.

The most convincing argument against free deals can be found in about 90 per cent of the independent drug stores of the country, and in many of the chain stores. I do not know a druggist who has not acquired some unsalable stock through the purchase of free deals, and in many stores such stocks have reached dangerous proportions. I have checked the stocks of a number of druggists who were in a failing condition, and in almost every instance, the druggist could have paid his bills and had a balance in the bank, if he could have realized the money he had invested in free deal merchandise.

Selling in the drug field, as in any other industry, is a question of the survival of the keenest and strongest financially. A manufacturer, therefore, cannot hope to change the policy or habits of the dealers by introducing unusual methods contrary to trade custom until he has become sufficiently strong as indicated by consumers general acceptance of his product. While deals are not accepted with great favor any longer, they still offer the manufacturer many desirable results, and that is why they are being abandoned only slowly and with great reluctance.

Generally, if the dealer has a large stock on hand, that fact alone will make him try to push it off his shelf. That, in itself, helps the manufacturer in his advertising tie-ups. The shipment of complete unit deals through the wholesaler makes it easier for the manufacturer to keep tabs on the stock of his wholesalers and enables him to get quicker repeat orders after his original "lay-in."

OTHER SPECIAL INDUCEMENTS: The "free" goods deal is only one of the many special inducements that are

used in getting dealer cooperation. They include p.m.'s, demonstrations, and co-operative plans as mentioned in Chapter 21. The free-goods deal usually is used in selling the independent drug retailer because it is only with the independent that the free goods prove of general interest. The chain store, or the larger retailer, especially the department store, and others of that type, are interested primarily in the net cost of their merchandise and are not so susceptible to "free" goods inducement, expecting the manufacturer to lower the net price of an article to them by discounts, etc. They prefer, and generally do, buy on a net price basis, and quotations are usually made that way.

DEALS ON A SEASONAL BASIS

Many manufacturers of a seasonal product find that it is to their advantage to offer their deals on a seasonal basis. In other words, cough product manufacturers usually start their deal efforts in June in an attempt to load the dealer with the merchandise that he is likely to use in the fall and winter. Combined with the deal is the fact that they give the retailer ample forward dating on payment to cover the time that the merchandise is in stock. This practice also holds true with Christmas and summer merchandise.

DISADVANTAGES OF DEALS: The seasonal "lay-ins" were at one time consistently used. However, within the last few years, the ability to lay in stocks so far ahead of the selling season has declined for financial reasons, while loading is a declining practice largely from necessity although better merchandising ability also plays no mean part.

While a free goods deal may be merely a reduction in price and thus be of some advantage to the dealer, there are still some disadvantages that may be mentioned. In a recent address before the N.W.D.A. the disadvantages of free goods deals were described as follows:

(1) Deals militate against the small merchant since he is unable to buy in sufficient quantities to get them; (2) deals increase the operating cost of the retailer through causing him to overstock, thereby increasing his maintenance costs, such as insurance, investment, etc.; (3) by causing the merchant to overstock, deals give the store a crowded and untidy appearance and thereby tend to drive away the better class of trade; (4) they confuse the merchant on the matter of price. Deals of this character merely offer a quantity discount but in such a way that many merchants do not properly figure their cost and selling price; (5) they enable a cunning druggist to order a sufficient quantity to get the deal and then return the original quantity to the wholesaler for credit and keep the deal, thus getting the deal free. This occurs especially where the deal is shipped to the retailer direct from the manufacturer upon evidence of the purchase furnished by the wholesaler; (6) deals in the form of an unrelated article, such as a tooth brush with every tube of shaving cream, in which the retailer is to give away the unrelated article, tend to reduce the sale and profit to be made on the regular stock of the unrelated item.

Therefore, in considering the size and nature of deals to be offered the foregoing must be considered so as to arrange the deal to overcome the objections enumerated above.

INFLUENCE OF DEALS ON DEALER PUSHING

As has been indicated, one of the reasons for offering "free goods" deals as quantity "buys" is the attempt to get

dealers to give preference to the manufacturer's product. Practically speaking, it often shuts out competition because there is less likelihood of a competitor's merchandise being purchased in the same quantities if one manufacturer's goods are already on the dealer's shelves. The opportunity to secure effective display is helped materially. The manufacturer finds that by convincing the dealer of the advisability of buying in as large units as possible, he has these important advantages as well as others, such as increased unit sales, cost reduction, consumer interest, display tie-up.

The dealer himself feels when he pays the bill that he is getting some compensation for his increased purchase. He forgets that it might be more economical for him to buy in smaller quantities because of the increased rapidity of turnover usual in cases of small, well-selected stocks of merchandise that his customers want.

Since it is impossible to get all manufacturers, or any but a few of them, to assume an altruistic point of view on this subject, and since the principle of loading still is thought to be desirable from the manufacturers' point of view, there is no doubt that deals will continue to be offered. However, the dealers' education is growing apace and with the help of wholesalers' restrictions, poor business, and general conditions, he is less and less inclined to overbuy. The practice will no doubt continue until such time as the manufacturers find that the disadvantages to them outweigh the apparent advantages. The retailer, however, may force the elimination of deals. Right now they have forced granting of deals down to a sales unit size undreamed of a few years ago. Deals figuring more than \$5.00 are frequently unsuccessful in securing dealer interest and there have been some conspicuous failures when larger deals were offered. Since the costs incident to handling a deal of this size are rather high, relative to unit sales, manufacturers might find it to their advantage to eliminate deals altogether, place the product on a fair net basis, and spend the difference in increased consumer advertising. The failure of the deals in larger units than \$5.00 can be definitely attributed to dealer resistance and inability to make larger purchases.

WHOLESALE REACTIONS TO DEALS

The handling of the "free goods" is more of a problem to the wholesaler than to the retailer. Manufacturers handle "free" goods deals in different ways and not all wholesalers are satisfied with the way that manufacturers expect "free" goods to be handled. These differences of opinion arise from the effort of both manufacturer and wholesaler to reduce the cost of handling. The opinion as to the value of free goods deals is not by any means unanimous among wholesalers either.

Opinions of the wholesalers are uniformly to the effect that the "free deal" does not move greater quantities of the goods into the retailer's hands. A dozen of an item plus one to three on the side as "free goods" give the dealer an incentive to push the product. He has tied up capital in it; sees the box with its dozen; he cannot ignore the display material flung at him with the "deal." Therefore, the dealer is more apt to find counter space for the goods, to display them, and what is of final importance, to make a real effort to dispose of them. The deal, without question, tends to overstock the retailer. But coincident with that result, the deal also provides an urge to move the goods into distribution. Both these consequences are lacking where the retailer is permitted to follow his inclination merely to

replenish gaps in stock, which, under the teachings of strict inventory control and minimum stocks, would best be effected by ordering the awful "one-twelfth dozen" or, at most, "one-third dozen" of the item. The deal forces upon him thirteen or fifteen, often multiples of that quantity. For reasons such as these, wholesalers are almost unanimous in their belief that the free deal moves goods—contrary as that belief may be to sound economics of *a priori* type.

Under O.P.A. regulations, when free goods deals were offered for a period greater than 90 days, it was ruled a permanent reduction in price. With the scarcity of merchandise, deals have been cut down somewhat. However, moving larger quantities of goods into the hands of the retailer is not the only consideration.

The wholesalers have been concerned about the objections to free deals for many years and in Bulletin No. 17 of the N.W.D.A. can be found a complete analysis of free goods deals, the objections to them, the arguments in favor of them and the results from the procedure in certain cases.

In order for the manufacturer to realize fully just how the deals are handled by most manufacturers, it is advisable to consider the statistical records of the wholesalers on his free goods deals and methods employed generally in the distribution.

What is of particular interest also is the statistical record of the sizes of deals sold and the comments by the N.W.D.A., with their opinion as to what is best from their angle. N.W.D.A. feels that the deal that is the most economical for them to handle is also the most economical for the retailer. They look upon these phases merely from the standpoint of the cost of handling, turnover, and profit.

A complete perusal of this bulletin will give an unbiased opinion and analysis of the wholesaler's opinions pro and con of the free goods deal.

RESTRICTION ON FREE GOODS DEAL

In order to avoid an unsatisfactory sales situation one firm found it advisable for a time to restrict to their salesmen only the offer to deals on their leading product. The principle behind this policy was that if the wholesaler's salesmen could give the retailer the same deal that company salesmen can, the company's salesmen would not succeed in getting on especially friendly terms with the retailer and might fail to cultivate his good will. Inasmuch as it is advisable that the dealer be made fully acquainted with merchandising and advertising policies of the company, and the retailer is expected to devote a little time to the company's representative, it was necessary for the salesmen to have a proposition that would make them welcome at all times, and receive attention from the retailer. The results were interesting. In the territories where this policy was consistently followed, house salesmen numbering less than 5 per cent of the total number of salesmen of the wholesalers outsold the wholesalers 10 to 1 in volume in the same period of time. This practice, of course, is not usual but may be adopted where the manufacturer has full sales coverage in a territory. Then the wholesalers' salesmen act as a supplementary selling vehicle. The plan should be used only where complete coverage can be made quickly.

PREVALENCE OF DEALS

Since the passage of the Robinson-Patman Bill, there has been some feeling that there would be a reduction in the number of deals that would be offered to the trade. Such

is not the case, however, as a glance at any of the current deals used in *Drug Topics* or *American Druggist* will show them to be as numerous as they have ever been.

There is no doubt that the free goods deal is still of interest to the dealers; the wholesaler complains only about the method of handling; and the manufacturer gets larger sales units. How long it will continue important in this field is a question the future will answer.

It behooves every manufacturer to analyze carefully the particular free goods proposition that he has in mind; to set up in his own mind to what degree and extent to offer free goods deals, and how important the particular free goods deal may be to his whole sales scheme. Recently, Mennen, one of the large manufacturers that have been using free goods deals for years, discarded the practice and is offering its merchandise at net prices. Listerine has been doing the same thing for a considerable time. It may be owing to credit conditions and to the realization that loading the dealer with unnecessary merchandise is of no particular benefit to the manufacturer. That to which so many retailers and wholesalers have been looking forward—the elimination of the free goods deal—may be approaching. For the time being, at least, it would appear that this practice may have reached its zenith, and that we shall find over a period of time a gradual elimination of the practice, particularly by those firms whose products are well established and for which there is a steady demand.

It is quite obvious that the free goods deal which started as a price reduction for increased quantity loses its effect and purpose if it becomes a permanent reduction. Furthermore, the manufacturer who has already an established demand for his product does not need the free goods

deal to create sales. He might well spend that money in additional advertising to create a greater pull for his merchandise from the dealer's shelves because, after all, with the financial conditions of the retailer at a low ebb, he can only pay for such merchandise as he can sell. With most retailers' inventories excessive anyway, the dealer himself is beginning to realize that it is of no advantage to him to buy in excess of his normal rate of turnover. For the new concern in the field, or for the firm that is introducing a product that has not the background of previous contact with the field, it is advisable for the manufacturer still to employ those methods that have been used for many years so successfully.

In view of the general prevalence of deals to the drug retailer, it merely is a question for the manufacturer to decide:

1. Can I get larger introductory sales unit with a deal?
2. Will the reaction be favorable or unfavorable?
3. Can the discount to be offered be more advantageously spent in general advertising?
4. Is a free goods deal a necessity or advisable?

After this has been determined, a decision may be made. It is quite obvious that there are many favorable and unfavorable factors connected with the use of deals, so that a complete generalization on the subject is hardly the answer. As far as combination deals to the public are concerned, they are really advertising vehicles and should be considered from that angle only.

* One druggist told one of the authors in April 1940 that as a result of so-called "free deals" he found himself with several times the number of tooth brushes he could sell in the rest of the year.

CHAPTER 11

Methods of Obtaining Dealer Cooperation

This chapter tells the reader about a variety of schemes that have been developed by producers of drugs and cosmetics to secure the cooperation of dealers at the point of sale of their products. These methods have been used for years. In essence they offer the dealer an opportunity either to buy cheaper or to make an extra profit in the hope that the dealer will put forth extra efforts to stimulate sales. Generally, these plans give only a temporary impetus to the sale of a product. However, since cooperation at point of sale (dealer's store) is essential to success, cooperative schemes can well be made a part of the marketing campaign.

SINCE manufacturers and wholesale distributors have been prone to emphasize the power of the good will of the retailer in effecting the sales of a product an attempt has been made to secure this good will by various cooperative methods. Illustrations have been given to show how the druggist frequently has an important influence on the sale of drug store products. If his cooperation can be obtained sales volume will be increased or at least advertising efficiency will be stepped up considerably. Since national advertising has become the rule this cooperation may

not seem to some to be so necessary; nevertheless, we hold it advisable to secure it.

COOPERATIVE PLANS

We think that securing the cooperation of the dealer is still an important part of any selling plan just as it was acknowledged to be years ago. During the past thirty years some firms have tried many methods to secure this cooperation.

Generally each was more or less successful until it be-

came conventional, and then economic and competitive conditions seemed to cut down its efficiency.

During the past fifteen years we have seen plans put into effect by manufacturers with independent retailers, by manufacturers with distributors, by wholesalers or distributors with retailers, and by manufacturers and distributors with retailers. The purpose of these plans is to secure the dealer's cooperation in pushing the sale of specific products and to eliminate, as far as possible, price cutting. The drug industry, since the introduction of mass distribution methods, has found it necessary to help the independent retailer, thus making necessary cooperative methods.

With the rise of the chain store and the adoption of loss leader methods to bring customers into stores, the independent retailer found it almost impossible to make a profit on the quick-turning products. He has been compelled to turn his efforts to the pushing of products that offered a profit, and he has been on the whole very susceptible to any plan that presented the opportunity of earning a normal profit as against the fruitless battle to match price cuts with the average chain.

The chain has also educated the retailer to become a better merchant. The retailer has copied the methods of the chain in his merchandising and has cashed in on the particular benefits that accrue to him by cooperating closely with manufacturers.

Cooperative plans may be divided into three classes:

1. Exclusive distributional rights.
2. Retail ownership.
3. Partnership and stock ownership.

Different firms have found it advisable to work under the respective plans and we will show how these have worked out in actual practice.

EXCLUSIVE DISTRIBUTIONAL RIGHTS: The first type of cooperative plan is that of giving protection to dealers by conferring exclusive distributing rights. This method can be divided into three groups illustrated by three plans first used many years ago in getting druggists' cooperation:

1. Rexall exclusive agencies.
2. The American Druggists' Syndicate ownership plan by investment.
3. Ex-Lax's method of free stock distribution to insure continued interest in the product.

There have been many companies that have tried these plans but these three are illustrative of the first cooperative efforts made in this field.

REXALL EXCLUSIVE AGENCIES: One of the first of the successful cooperative plans to obtain dealer good will was the Rexall dealer's plan of the United Drug Co.

A number of years ago when price cutting was started, the company manufacturing Vinol appointed in each locality an exclusive agent whose purpose, naturally, was to maintain price in the territory; and an attempt was made to confine the products to these agents only. In 1903 with these agents as a nucleus the United Drug Co. was organized by Louis K. Liggett. In the same year the Rexall line of nonsecret drug preparations was introduced to the trade.

The Rexall franchise, after the products had been effectively introduced and supported, became very valuable and the Rexall dealer in each community had a monopoly on the preparations manufactured by the United Drug Co. Mer-

chandising plans designed by the company to stimulate sales were presented to the dealers for their use from time to time and in that way the retailer was able to compete successfully with his neighbor in the nonsecrets and proprietaries and to receive a fair price for his product; for not only had he the advantage of buying reasonable prices but also he was not subjected to price cutting on Rexall merchandise.

However, there was some hindrance to the forward progress of merchandising through this method. There are many products in the drug store the brand of which has no particular significance to the consuming public. In other words, many hundreds of products are sold to the customer who comes in and merely asks for a package, for instance, of aspirin or bicarbonate of soda or some other product. Consequently, with the passage of time, and as general advertising behind specialized drug products became more intensive, the efficiency of the United Drug plan became lessened and the druggists' pushing of Rexall products became less and less effective. Then the United Drug Co. organized a chain of retail drug stores known as Liggett's. This was an outgrowth from one of the stores of a Rexall dealer that came on the market through a bankruptcy. For a number of years Liggett's continued to acquire stores in various communities where Rexall merchandise was sold, and expanded so rapidly that now they are one of the largest retail chain drug outfits in the field, operating over 600 stores in the United States and Canada.

This organization of chain stores serving as outlets of the manufacturing company did not altogether solve the merchandising problem. Independent individual specialties become increasingly important and in some cases dominated their respective fields. Finally in 1929 the United Drug Co. found it advisable to purchase the ownership of a number of specialties that had grown to formidable size in the interim. The individual specialties became much more important in their respective fields than the products put out under the original Rexall mark. Advertised products and other push products had decreased the importance of Rexall merchandise even to the manufacturing unit that owned L. K. Liggett stores.

The fickle public favor could not be held. It was another illustration of the power of advertising as against dealer pushing, and Drug, Inc.'s, venture into purchasing products competing with Rexall items that had acquired large public favor is self-explanatory. However, the attempt to ride on both sides of the fence did not prove satisfactory.

It appears that the Rexall brand influence on the sales of the United Drug Co. had gradually been reduced as attention was now being brought to bear on the other trade-marked products brought under the control of Drug, Inc. As a result of the merger, there was a sharp conflict in merchandising plans and ideas. The proof that an organization cannot operate successfully with radically divergent promotional plans would seem to be evidenced by the split-up of Drug, Inc., and the restoration of Sterling Products, Inc., Vicks, Bristol-Myers and the other units to their original independent self-contained status.

AMERICAN DRUGGISTS' SYNDICATE PLAN: A cooperative setup was tried by another large organization which started about five years after the United Drug Co.-Rexall venture, known as the American Druggists' Syndicate. This group was organized along the same general

lines as Rexall, with the exception that druggists were invited to participate in the profits of the company through the purchase of stock. At one time it was believed that close to 60 per cent of the druggists in the country were members of the American Druggists' Syndicate.

However, through merchandising methods that seemingly were not altogether successful and changing economic conditions, plus the fact that individual advertised products became increasingly dominant, the importance of the American Druggists' Syndicate to the individual retailer became less and less. This organization, too, found it advisable later to purchase a number of advertised products and coordinate the selling efforts of both groups, but has had considerable difficulty in the past few years in regaining the hold that had been lost on the retail druggists of the country.

This, however, cannot be blamed so much on the failure of the cooperative plan as on the limitations of management, changes of public favor and increase in specialty domination of individual items. The result is that in the past few years the greatest volume of business has been done on the advertised items of the syndicate. A few of the old "push" specialties have been reasonably successful but not sufficiently so to indicate that the pushing principle outweighs intensive, national advertising. The company is now concentrating more and more on increasing its efforts behind a few of its nationally advertised products. However, since the company's stock was listed on the stock exchange, no doubt a large number of druggist stockholders have sold their interests so that it may no longer be considered a cooperative organization.

EX-LAX PLAN: The plan of the Ex-Lax Co. was in the nature of a combination of the United Drug Co. plan and the American Druggists' Syndicate plan with the exception that the efforts were put behind one specialty only, the laxative Ex-Lax.

At first when the merchandise was offered for sale by the two former wholesalers who started the company, they offered dealers in order to induce them to push the product, stock in the company for window cooperation, for counter display, for active cooperation and for large-scale purchases.

Then later, since the stock had not paid any dividends, dealers would complain to the company's representatives about the value of the stock that they were offering, and, in many cases, they would sell the stock back to the company for a quantity of merchandise that was offered in exchange. The basic plan involved here was to give the dealer a financial interest in the company that he might help build up by his efforts.

The company was unusually successful. It gradually increased its sales and its distribution, and after a time the stock which in the beginning was looked upon as being almost worthless, became quite valuable. Many a retailer has hunted long among abandoned papers for the certificate that he had cast aside with derision as soon as he discovered that the stock had a market value and when he received a considerable cash offer for his holdings.

The Rexall plan, which grew out of Vinol Distributors' plan, was an exclusive distributor's arrangement.

The American Druggists' Syndicate plan involved an investment by the retailer in the stock of the manufacturing company and the assurance to him of cooperative profits

in a company he owned in exchange for his cooperation.

The Ex-Lax plan provided for the distribution of stock free, in the hope that the dealer by his cooperation would help make the stock valuable and as a result the dealer would profit in addition to the profit on his merchandise.

One of the fallacies that has been emphasized under these various plans is that large quantity discounts are beneficial to the retailer. Most of the evils of price cutting can be laid at the door of quantity discounts. For this reason some of the methods adopted have looked toward the elimination of quantity discounts. The appointing of an exclusive distributor was the method used most frequently.

In all cases the elimination of price cutting by restricting competitors was one of the reasons advanced, although for the Ex-Lax Co., manufacturers of a specialty, this was not as important a consideration as for Rexall and the American Druggists' Syndicate as these companies offered complete lines of practically all nonsecret remedies—in competition with heavily advertised price cut specialties. In the latter two cases the dealer was given the opportunity of fighting price cutting by pushing specialties not on the shelves of other dealers as in the beginning only stockholders in A. D. S. could buy their merchandise.

These three are illustrations of many attempts since made along similar lines to obtain retailers' cooperation and to secure selective distribution. These cooperative plans are offered usually by manufacturers who have a general line of drug products to sell. Between the years 1905 and 1915 the number of companies starting under this plan were many—comparatively few survive today and those that are in existence have changed their setup radically.

EXCLUSIVE DISTRIBUTORSHIPS

The above period was succeeded by an intermediate period during which independent manufacturers tried to insure dealer good will and cooperation without actually interesting the dealer financially in the manufacturing company. The more recent methods attempted have usually been those of exclusive agency or distributorships with special price concessions and bonuses for active dealer cooperation.

The basic reason for these special deals is the same as under the previous plans, that is, to try to secure dealer cooperation by assuring the retailer a long profit when handling a line of nonsecrets such as mineral oil, rubbing alcohol, aspirin and other similar products.

These efforts led retailers to believe that their window and counter displays were worth money and it became necessary for the manufacturer to create a receptive attitude in the mind of the retailer to secure from him adequate display and proper featuring of the lines offered him.

Most firms who adopted the policy of giving the retailer an exclusive arrangement found it to their advantage to maintain a fixed wholesale price without any quantity discount that would interfere with and tend to demoralize the retail sale price. Most retailers it is believed are of the opinion that a uniform level of prices is more satisfactory, and, through the cultivation of this feeling in the independent retailer, a wider distribution of the product was possible.

DISTRIBUTION THROUGH WHOLESALESA

Some manufacturers distribute their output entirely through wholesalers and it is well at this time to call atten-

tion to two modern methods of distribution that call for dealers' cooperation and that still, in their details, are radically different.

ELI LILLY & CO. PLAN: The first is the Eli Lilly method of handling pharmaceuticals. This firm does all of its business through wholesalers. The merchandise that the dealer wants is purchaseable only through the wholesaler and it is remarkable, indeed, to know how uniform the prices of their products are and that all the wholesalers, who are selected with extreme care, maintain full prices on all products to the dealer. Incidentally, when operating through wholesalers, control of the wholesalers' price is simple. Wholesalers are usually selected because of their ability and their general recognition in the trade. They are confined largely to members of the N. W. D. A. who comprise the service wholesalers of the United States as contrasted with the F. W. D. A. who comprise the mutuals. By agreement service wholesalers are always willing and glad to maintain manufacturers' list prices to the trade and will do so on request at any time for any manufacturer.

SQUIBB PLAN: Against this we match the Squibb plan adopted in 1930. The firm of E. R. Squibb & Sons also manufactures pharmaceuticals. This plan required the individual, independent retailer to invest \$500 in the stock of the Squibb Plan, Inc. On this stock the retailer receives 6 per cent interest at the end of every year he receives his share of one half of the net profit of Squibb Plan, Inc., in the form of a rebate made by the manufacturer on the retailer's purchases. It is interesting to read the details of the plan as published by the company:

"For each share of distributors' stock issued, E. R. Squibb & Sons agreed to sell at the same price one share of its common stock to Squibb Plan, Inc., up to 50,000 shares. In addition the Squibb company agreed to pay into the treasury of Squibb Plan, Inc., 10 per cent of the actual purchases of all members of the Plan and 10 per cent additional on the aggregate increase in purchases over the preceding year's purchases. These amounts, together with the income from Squibb company common stock are to be first used to pay the dividend on the preferred shares of the Plan. Then the balance is to be divided equally between the manufacturer and the distributors, the latter to be paid in the proportion to the amount of their purchase."

ELI LILLY AND SQUIBB PLANS COMPARED: It is interesting to check the differences between the two situations of these long-established manufacturers. Both firms have merchandise that the druggist cannot be without. Although their methods of interesting the dealers are different in detail, they are the same in their realization of the fact that the independent retailer is a necessary factor in any proper distribution of any product. There is a very marked difference in the character of the merchandise handled by each. The Eli Lilly products are not asked for by the general public as they are sold only on prescription or recommendation of physicians. Squibb, while manufacturing the same type of products as Eli Lilly also manufactures a number of household specialties that the dealer can be expected to offer to the public in lieu of advertised merchandise that may be out. They include mineral oil, aspirin and many others. Here we have one manufacturer

with no general public demand maintaining distributors' good will by restricting competition and another manufacturer by a profit-sharing arrangement of investment and sales bonus, helping to put over both proprietary and push items. Comparison of the effectiveness of the two plans is not possible because the businesses although competitive in pharmaceuticals, is not otherwise, since Squibb has many other advertised products to sell that give the retailer a much greater opportunity of making money on his investment in the Squibb Plan.

McKESSON & ROBBINS PLAN: After the merger of many wholesalers into the McKesson & Robbins Co., a new cooperative plan was presented to the dealer. The McKesson & Robbins plan was very similar to the original Rexall plan in that it tried to tie up the retailer as a purchaser of a special line of nonsecrets that are available to him only through his regular service wholesaler or one of the constituent members of the McKesson & Robbins group. The difference between this method and the Rexall is that no retailer has an exclusive territorial or community arrangement. There is no franchise. In view of the fact, however, that the merchandise is purchased from the wholesaler and that the wholesaler has considerable control of most of his retail customers through credit extended and otherwise, it is possible for McKesson & Robbins to obtain a reasonable degree of dealer pushing for those products that are not asked for by brand name.

After all the value of a plan depends upon its success. The possibility of the success of the McKesson & Robbins plan may be seen from the fact that its dealers as well as its branch houses are placed in the anomalous position of being manufacturers when they are selling McKesson & Robbins merchandise and wholesalers when they are selling the merchandise of other houses. So far the manufacturing ventures have not been conspicuously successful and there appears to be a lot of unanimity of opinion even in the McKesson & Robbins organization itself as to whether the manufacturers' products should be offered and sold by the same men who are selling competing products. McKesson & Robbins was able to concentrate its pushing of all the private lines of the respective houses into one line.

DEALER REACTIONS TO PUSH LINES: Generally each retailer can select the line of merchandise to push but he is compelled by the force of public demand to carry all of the leading products whether he likes to or not. The result is therefore that while he may after considerable effort get a decent profit on a portion of his sales, the total value of all the competing products together that have public favor are far greater than the sales of the products that he can control; and therefore these become decreasingly important to his general sales volume. Since the passage of the Tydings-Miller Act and other various state enabling acts it is evident that as the dealer received better prices on his cut items he was less inclined to push private lines, because dealers are human and like to follow the line of least resistance. Offering the public an advertised item generally does represent the line of least resistance when selling goods, and the demand for products by brand name is increasing steadily. The continuance of this condition depends entirely on the retention of the Tydings-Miller Act which the Federal Trade Commission is opposing.

SPECIAL CONCESSIONS AND COOPERATION:

Sometimes active cooperation can be purchased by giving the retailer credit concessions. We have touched upon this previously but there is one plan that has been used by a number of firms from time to time that has proved rather successful in gaining dealer cooperation and at the same time cutting down credit losses. This is known as the contract method, with payments for merchandise in advance.

Under this plan as usually applied, the dealer agrees to buy a minimum quantity of merchandise over a twelve-month period, possibly \$100 or more, for which he pays in advance by giving post-dated checks or notes falling due at monthly or bi-monthly intervals. The dealer, because he pays in advance, gets an extra discount or bonus in merchandise. This plan is workable if the dealer can use a quantity large enough to warrant his signing such a contract.

With some manufacturers the dealer can take in the purchase at one time. With other firms he has been permitted to use the goods as he needs them and not to overdraw his checks, or, at least, not to get more merchandise than is covered by the checks that have cleared the bank.

The manufacturer gains many advantages under this method. He is assured of a uniform volume of sales. He knows that the dealer will use his utmost efforts to dispose of the merchandise contracted for, and he is assured of a regular flow of cash for the goods without the expense of attempting to collect for the purchases in the usual manner when selling direct.

The dealer naturally thinks that he is receiving a price concession. He knows that a certain quantity of merchandise is purchased at regular intervals and generally he uses his efforts to sell the goods as fast as he can, especially since he knows that they will have to be paid for and that the payments are made automatically once the contract has been entered into.

The Ex-Lax Co. is a conspicuous example of a firm that was quite successful with this method, after they discontinued the practice of giving away stock certificates and after their product had reached the point of consistent demand.

On two occasions, once in 1918 and again in 1930, the Crystal Corp., finding it necessary to assure itself of a steady volume of sales and remittances, used the same method. As a matter of fact both Ex-Lax and Crystal used this plan for many years and found it very desirable in selling retailers direct, at a minimum of credit losses with but comparatively little collection and sundry expense. However, a plan of this kind can be used only where the dealers have sufficient confidence in the firm and the product sells freely to contract for merchandise to that extent and pay for it in advance.

CHAIN AND DEPARTMENT STORES AND COOPERATION

From the above it will be noted that most of the cooperative plans that have been described have related almost exclusively to the independent retailer. When it comes to cooperation from the chain stores and department stores, cooperation must be boiled down to a question of price. Most department and chain store organizations demand cooperative advertising. This cooperative advertising may take the form of a direct allowance in the shape of a discount on purchases in exchange for active cooperation. The danger in this method lies in the fact that unless a clear

and concise statement of what is expected in the form of cooperation is agreed upon, the expected cooperation may not be forthcoming.

In some cases p. m.'s are offered to clerks of the retailers—sometimes by the manufacturers and sometimes by the chain organizations. This is especially true with some of the chains.

Department store cooperation generally results from payment for advertising the product in with the store's advertising or extra concessions on prices. Department stores also, especially in toiletries, are the beneficiaries of the hidden demonstrator system. This type of cooperation, which is really nothing else than the manufacturer paying for the sales clerk, was widespread in practically all department store toilet goods sections prior to the adoption of the N. R. A. codes. It was then discontinued for a time, and then revived greater than ever. The passage of the Robinson-Patman Bill does seem to leave uncertainty as to the future of hidden demonstrators. The Federal Trade Commission has issued a number of citations against firms that are using hidden demonstrators, but so far, the practice is still in vogue—and has not been discontinued to any great extent. As a matter of fact in many large department stores practically every toiletry sales clerk is a hidden demonstrator. It must be beneficial, as so many firms find it to their advantage to use the system. Most stores are still in favor of demonstrators. However, some stores have found that the customer reaction is not especially favorable. There have been occasions, particularly in the case of certain department stores where hidden demonstrators in stores are permitted, yet these same stores may have similar products under their own names to match nearly every toiletry product in the store. They have found that pushing their own lines is still more profitable even when manufacturers pay most of the salaries of the clerks.

The buying of this form of cooperation is purely one of individual bargaining. This represents not the settlement of a large basic policy but rather individual trading, depending upon circumstances in each territory, and the cloth must be cut to fit the pattern of each situation. Here the manufacturer is called upon to buy his cooperation in each store and pay whatever price he thinks the cooperation is worth, and what is demanded for it. In an outstanding department store that dominates many retailers in the state, the price may be high and at the same time worth it.

MAIL-ORDER HOUSES

Cooperation as defined by the mail-order houses means payment for the space used in the catalogs. It is certain that mail order houses will not take on products that they think they cannot sell, but, at the same time, they expect pay for the space they give each product. Some mail order houses expect inside discounts, and others, actual payment per square inch of space used. Since the results of any such payments are easily checked, this form of cooperation at least can be made to pay its own way or be dropped before commitments become heavy.

RETAILER-WHOLESALE COOPERATIVE METHODS

We have treated so far only those methods employed by the manufacturer. There are, in addition, two other plans that the retailer himself has developed for his own benefit that should be mentioned: (1) the Mutual Wholesaler Plan; and (2) the Local Buying Group.

THE MUTUAL WHOLESALER: The Mutual Wholesaler, started originally by the Philadelphia Wholesale Drug Association, is a wholesale organization formed by retailers, in which each retailer purchases a franchise through the investment of a certain minimum sum of money to help finance the organization. These organizations take orders from their members only over the telephone and they extend credit for no more than one week. In such ways they keep overhead down to a minimum. As a result they are able to offer the retailer a concession usually of as much as 10 per cent on the purchase price of all drug products bought through the wholesale organization. This situation places the retailer in a better price position for competition.

THE LOCAL BUYING GROUP: The local buying group usually consists of a group of anywhere from five to fifty retailers in contiguous areas who get together and select one individual to purchase merchandise in large quantities in order to take advantage of all available quantity discounts; he distributes the goods to the individual members. These groups usually exist only in so far as they gain the intense interest and active guidance of one or two outstanding individuals in the group. Generally after a period

of time, individual jealousies crop out and tend to break up the group so that in the main they are short lived although their purpose is gained in making purchases at more attractive levels for a limited period of time. The retailer generally suspects group activities. The druggist because of his professional background is afraid of losing his identity or individuality and so fights shy of buying or advertising group activities.

In the case of the mutual wholesaler, when cash was plentiful, and the retailers were in a position to pay their bills promptly, the Mutual was able to make serious inroads into the business of the regular wholesaler. However, as soon as economic conditions changed these circumstances, the service wholesaler who extended credit was once again able to do his fair share of business in competition with the Mutual. The Mutual's great bait was discount and this was usually met by the service wholesaler who also extended credit so that competition in this connection is as keen as ever. Generally the Mutual wholesaler also marketed his own line of nonsecrets and in effect the promotion efforts on the dealer were similar to the McKesson & Robbins push line plan except that the druggist had a stock interest in the company.

CHAPTER 12

Miscellaneous Sales Promotional Efforts

In this chapter the reader's attention is called, first, to the variety of trade associations in this field and the type of cooperative activity to which they are committed in advancing the interests of their members. Membership in some, if not all, of these associations is desirable for the producers of drugs and cosmetic products for the contacts they can make and the prestige they can assure. Second, attention is called to the variety of devices other than personal selling that can be used to reach the dealer to interest him in a line and secure his cooperation.

IN attempting to acquaint the reader with the methods of reaching the dealer other than by the employment of salesmen, we are confronted with the problem of where dealer sales promotion aid to salesmen stops and consumer advertising begins. For the purpose of our study, we define advertising as "the expenditure of effort and money to reach through mechanical means the ultimate consumer, that is, the last user of the product." Dealer sales promotion, on the other hand, is "the expenditure of effort and money to influence and guide the actions of the distributor or retailer, with a view of placing merchandise where it is readily available to the consumer." The proper understanding of these miscellaneous efforts which come under the head of dealer sales promotion is best assured through a consideration of the organization of the drug industry.

ORGANIZATION OF DRUG TRADE FOR COOPERATIVE ACTION: The drug field is particularly fortunate in being well organized from its base, the retailers at the bottom, up to the manufacturers at the top.¹

In considering the marketing of our product, we shall

probably find that we are able in many ways to make use of these organizations, which exist to serve their respective branches of the drug field. Each manufacturer should bear in mind that only through organization and cooperation with his fellows can he obtain the best knowledge and assistance to solve the various problems that confront him at all times.

MANUFACTURERS' ASSOCIATIONS: The first group of organizations to be considered are the manufacturers' associations. The principal ones are the following:

- American Drug Manufacturers' Association.
- American Pharmaceutical Manufacturers' Association.
- Proprietary Association.
- United Medicine Manufacturers' Association.
- The Package Medicine Association, Inc.
- The Toilet Goods Association.
- Drug, Chemical and Allied Products Section of the N. Y. Board of Trade.
- National Association of Insecticide and Disinfectant Manufacturers.

The purposes of each group vary in detail but the general purposes are similar. Whether fortunately or not, drug products have always been a victim of what at times seems to be hasty and careless health ordinances and other legislation. Most of the efforts of the associations mentioned above have been directed toward the elimination of what they understood to be unsound trade practices and of the hasty, careless, and often costly legislation frequently proposed. At the same time, they serve as a clearing house for members with like problems to assist one another in solving them to their mutual advantage. Illustrative of these problems are the "bootlegging" or "counterfeiting" of legitimate products, which assumes large proportions in the United States, and the substitution of one make for another now practiced on a wide scale by counterfeiters, the local board of health regulations, state special taxes and registration fees, and clarification of Pure Food, Drug and Cosmetics Act regulations and administration.

Any manufacturer can find it to his advantage to join the associations organized to solve the problems in the individual manufacturer's field of operations. Any manufacturer can find out in detail the uses and purposes of the respective associations from their headquarters.²

WHOLESALE ASSOCIATIONS: While this volume does not concern itself particularly with wholesaler organizations, except insofar as they relate to retailers' operations, the wholesalers are now found in four general groups as follows:

- National Wholesale Druggists' Association.
- Federal Wholesale Druggists' Association.
- McKesson-Robbins Group.
- Druggists' Supply Corporation.

The largest of these associations is the National Wholesale Druggists' Association because of the many manufacturers in its membership group.

It will be noted that one of the group, the McKesson-Robbins Group, is actually a consolidation of a number of independent firms and really is not a trade association. It is a privately owned corporation. It is included in the group because it controls many wholesale houses and faces many of the problems of a wholesale association. The others are strictly trade associations of individual wholesalers working together for their mutual advantage.

These associations consider the problems of the wholesalers as they arise both those that arise from economic and political conditions and those that result from the actions of manufacturers and retailers.

The National Wholesale Druggists' Association has for its purposes the following:

Whereas it is desirable to promote fraternal and social relations between the wholesale druggists of the country; to guard against feelings of distrust and jealousy that may at any time arise; to discountenance all customs not in accordance with sound business principles, we do form ourselves into an association, and will be governed by the following Constitution and By-Laws.

BUYING ORGANIZATIONS: There are two large buying organizations for the chains in the industry, the Affiliated Drug Stores and the Associated Chain Drug Stores, both with their headquarters in New York City. These groups represent primarily buying organizations of chain stores, the purpose being, as far as possible, to effect further

economies in purchasing. They act as general clearing houses for new products, for the discussion of merchandising plans, the elimination of unsound practices, and the consideration of numerous other problems.

They hold conventions annually and semi-annually and many manufacturers find it to their advantage to attend them so as to keep in touch with what these organizations attempt to do.

PROFESSIONAL ORGANIZATIONS: There are a number of professional groups with which we are not concerned. They are mentioned at this point as a matter of record. These organizations function largely in the field of professional ethics and research for the benefit of the members thereof. Their research findings may, however, aid a manufacturer in the development of a new product; their development of ethics may turn into a solution of a marketing problem. They are as follows:

- American Registered Pharmacists' Association.
- National Drug Trade Conference.
- American Association of Colleges of Pharmacy.
- Drug Trade Bureau of Public Information.
- National Conference of Pharmaceutical Research.
- Conference of Pharmaceutical Law Enforcement Officials.
- Conference of Pharmaceutical Association Secretaries.
- National Association of Boards of Pharmacy.
- American Pharmaceutical Association.
- United States Pharmacopeia.
- Council on Pharmacy and Chemistry (A.M.A.).
- Council on Dental Therapeutics (A.D.A.).

RETAILERS' ASSOCIATIONS: The retailer can be found attending the meetings of one of three groups—the National Association of Retail Druggists, which is the national organization representing a number of retailers' state associations; he may be active in the state associations that are to be found in every state in the union, and their membership is composed of a number of local organizations in counties; or, as in the case of New York, he may be a member of a sectional group that, in turn, is a member of the New York Pharmaceutical Conference. The various organizations cooperate with one another from time to time in combating legislation, which interferes with the earning of profits.

Of late years, discussion in these local association meetings, state associations, and even national associations of retailers, has departed from the purely professional questions such as revision of state pharmacy laws, revision of *United States Pharmacopoeia*, and other similar problems which used to be the order of the day. Now they frequently discuss, violently at times, the individual methods and policies of firms whose operations have not met with general trade approval, making specific reference to the offending members of the industry. Such discussion is sometimes followed by action accepting or rejecting a marketing policy used by a concern selling to the retailers. This may in turn have an effect on one's attempt to sell to the members of such an association, since it may in effect become a boycott. We do not mean to imply here that boycotts are consciously entered into, but rather that where a manufacturer's policy is distasteful to some members of an association, discussion brings it to the attention of many who then individually decide they do not want to trade on the basis of such pol-

icies. These individual decisions become virtually group action, whereas before the discussion only a very few might have gone so far as to reject a particular manufactured product or line of goods. There are even some rumors that now and then a misguided member of such an association will individually try to bring pressure to bear on members who still patronize a manufacturer whose product has become taboo.

This tendency in discussion has frequently benefited business. It has resulted in the clearing of the atmosphere on many disputes, policies and methods of operating that had apparently been unsatisfactory, and that had met with considerable disapproval. It has enabled the manufacturer to ascertain quickly the desires of the majority of active dealers and to change his policies to meet, as far as possible, conditions that make for more efficient marketing and better understanding between the manufacturer and the retailer.

Further efforts of these associations were directed toward securing price legislation and until the passage of the state fair trade law and the Miller-Tydings Bill, these were among their principle objectives. Now, they are keenly interested in making these laws effective and discussion has to do with attempts to cooperate in the enforcement of these laws, which at the moment must be policed by the industries concerned through proper court action.³ Another subject of current discussion is "How to reduce the number of competitive items, sizes and so on."

INSTITUTIONAL SALES PROMOTION: All manufacturers are expected, in one fashion or another, to contribute, in person or otherwise, to the efforts of both the wholesalers' and the retailers' trade associations. Those firms that manufacture technical products even join the professional associations by invitation. The type of contribution takes many forms. The manufacturer may become an associate member of the wholesaler's association. Such a membership may cost \$100 annually and it gives him certain privileges and rights; it enables him to attend the conventions that are held regularly and to become acquainted with his distributors. At these meetings he meets the leaders of the industry and later has the opportunity of becoming really known to the groups he is soliciting. In addition, he is expected to cooperate in special drives initiated by these associations for the benefit of the industry in general.

The individual retailer and retail organizations also call upon the manufacturers from time to time for financial assistance in large or small amounts. These calls generally take the form of requests for the purchase of tickets to trade banquets, donations, door prizes and other similar requests. Advertising space in the program is frequently purchased by manufacturers. Most manufacturers see to it that their representatives in the territories attend these banquets at the firm's expense.

While it is problematical as to just what effect this form of "promotional" or good will advertising has in the manufacturer's standing in the trade, still, the situation being as it is, and trade custom demanding some sort of cooperation of this type, the manufacturer is expected to do his share. It is all part of the general effort to build good will. Usually the recommendation of the representative in the territory should be followed in this respect. It will be recalled, in this connection, that a few

years ago the manufacturers of Pepsodent contributed \$25,000 to the National Association of Retail Druggists, when it was in the midst of its drive to secure price maintenance legislation. The Pepsodent Co. advertised the fact to call it to the attention of members of the association, and it is obvious that they did this hoping that the good will of the druggists would be secured.⁴

THE PROBLEM OF REACHING THE DEALER: Because of the discussion and actions of the associations, a manufacturer is enabled to develop basic policies so as to conform with the general opinions of the trade. After policies have been developed the manufacturer must use the means at his command in advising and informing the retailer what is available and what his methods of operating will be.

SALES PROMOTION THROUGH ASSOCIATION PAPERS: One of the quickest ways to reach the dealer and to inform him of products, changes in products, policies and other important facts is through his trade papers. Trade papers are divided into three general classes:

1. The trade papers of local retailers associations.
2. Trade papers owned privately and circulated in limited areas.
3. General and national trade papers.

LOCAL TRADE PAPERS: We start this discussion with the small neighborhood and city association papers because they are the basis for reaching the local trade. The use of the local trade paper depends upon the field that is to be covered. Some of these trade papers have very wide circulation in their respective territories. *The New York State Pharmacist*, for instance, a monthly published originally by the New York Pharmaceutical Association, covers the entire metropolitan area thoroughly. It had a circulation in 1943 of 12,000 and its rate was \$140 a page.

The *Philadelphia Retail Drug Journal* and the *Chicago Retail Drug Journal* are published by the local associations and are sent to each of their members monthly. In both of these places the membership of the associations comprises a large majority of dealers in the territory. Particularly for unusual offers, these special local publications can be used advantageously although most of them appear only monthly. These local papers are generally found just in the larger cities because there the membership is large enough to warrant a paper of this type. Advertising in these papers is usually looked upon as support of the local groups and may gain the manufacturer some good will as well.

SECTIONAL PAPERS: The next group of trade papers that we have as an aid to our sales promotional efforts is the sectional papers. Usually each one embraces a fairly large section of territory and along geographical breakdowns. The principal journals of this type are the *Northwestern Druggist*, *Southwestern Drug Journal*, *Pacific Coast Drug Journal*. Some of these trade papers, because they are published by wholesalers, are practically house organs. A journal of this type may enable a manufacturer to reach the dealer who is outside some local city association or whose state association does not publish a journal, and who, consequently, keeps informed of con-

ditions in his territory through the media mentioned above.

All of these papers carry, as a rule, the advertising of most of the leaders in the field, give the manufacturer active cooperation, are read with interest by the dealers, and lend considerable prestige and assistance to the manufacturer should he be covering the particular territory in which the journal is published. The dealer very often pays close attention to his sectional paper because of the personal contact it gives him with his wholesaler and the news of his state association activities.

NATIONAL MEDIA: After we have considered the sectional media, we must next take cognizance of the national media which reach not only the retailer but the wholesaler and manufacturer as well.

National media can be divided into two classes: (1) the media that are intended for the manufacturer, as trade papers of his own and that keeps him posted on the latest methods, problems and questions that are of interest to him; and (2) the media that reach the druggist, and that are the only way of covering all retailers in the field through one or two media.

The principal national mediums of the first mentioned classification are the following:

American Perfumer.

Drug and Cosmetic Industry.

Drug Trade News.

The retailers' papers that reach the druggist on a national scale are as follows:

American Druggist.

Chain Store Age—Drug Edition.

Drug Topics.

National Association of Retail Druggists Journal (an association paper).

Beauty Fashion.

No attempt will be made here to weigh the values of the respective publications insofar as they may help the manufacturer bring his product to the attention of the retailer.⁵ There is no doubt that the continued success of these publications, their intensive circulation in the field, makes it necessary for a manufacturer who is attempting to do a national sales job to consider them seriously. They enable a manufacturer to bring his product to the attention of the retailer and the wholesaler at a reasonable cost. Each of these publications can give the usual analysis of circulation and copies of surveys revealing the regard in which they are held by their subscribers.

Although these national trade papers are designed primarily for either the manufacturer or the retailer, there

seems to be no question but that the wholesalers read them, and even the wholesaler's salesmen who wish to keep abreast of the latest conditions are to be found reading the papers with considerable interest.

The publications vary considerably in physical size and in the general treatment of the subjects they cover. They also vary in the method of distribution. Some of the papers are distributed only by paid subscriptions. Others are distributed gratis to the retailer. The oldest and largest, *Drug Topics*, is distributed to the customers of wholesale houses located in every section of the United States. The latter publication, starting as a pocket size monthly magazine, is now a bi-weekly newspaper, tabloid in size, and gives up-to-the-minute news of the industry to the entire retail field.

Because so many products are now being offered to the retailer, the trade paper in the drug field may have considerable influence in introducing a product to the dealer quickly and cheaply. The editors and publishers of these trade publications are highly regarded by most of their readers everywhere. These papers are constantly being studied for the improvement and betterment of the economic conditions of the trade. Therefore, when advertising in one or more of the trade publications is undertaken it helps the newcomer to attain prestige and standing. The result is that the way is prepared for the salesman's efforts. Advertising in the trade publications helps break down the resistance of the retailer to new products and makes the dealer feel that the manufacturer's product is not altogether strange and that one can have confidence in the manufacturer's proposition and believe in his integrity.

REACHING THE DEALER BY DIRECT MAIL: Whereas trade papers represent the quickest and usually the most effective method of placing a product before the dealer, and of gaining the prestige necessary to establish a firm in the eyes of the dealer, other methods to accomplish these same results are also employed.

Mail pieces are used consistently by many producers to apprise the retailers of drug propositions or deals. These mail pieces may be divided into two classes: (1) general mailings by the manufacturer direct; and (2) enclosures of manufacturer's circulars or cards in the regular mail from wholesalers to their customers.

¹ "The Organization of the Drug Trade," *American Druggist*, N. Y., 1931.

² See *Drug Trade News Fact Book* for complete data of these associations.

³ See any issue during 1940 of *New York State Pharmacist* for evidence of this type of activity.

⁴ See *National Association of Retail Druggists Journal*, Aug. 26, 1937, 1286-1287.

⁵ Full details as to circulation, and so on, can be found in *Standard Rate and Data* or secured from the publication direct.

⁶ In this connection see chapters XVII and XVIII in *Marketing Investigation*, W. J. Reilly, Ronald Press Co., New York, 1929.

(Chapter 12 continues in the subsequent issue.)

